DOCTOR OF CLINICAL PSYCHOLOGY (DCLINPSY)

Doctorate in Clinical Psychology: Main Research Portfolio

1) Cognitive Models of post-traumatic stress following child maltreatment: a systematic review; 2) Implementing multi-family therapy (MFT) within a community eating disorder service for children and young people (CEDS-CYP); 3: Why do some young adults develop Post-traumatic stress disorder (PTSD) following intimate partner violence?

Wiseman, Hannah

Award date:
2018

Awarding institution:
University of Bath

DOCTOR OF CLINICAL PSYCHOLOGY (DCLINPSY)

Doctorate in Clinical Psychology: Main Research Portfolio

Wiseman, Hannah

Award date:
2018

Awarding institution:
University of Bath

Research Portfolio Submitted in Part Fulfilment of the requirements for the Degree of Doctorate in Clinical Psychology Volume 1 of 2

Hannah Wiseman

Doctorate in Clinical Psychology

University of Bath

Department of Psychology

May 2018

Word Counts

Systematic review: 7628

Service Improvement Project: 6061

Main Research Project: 6171

Executive Summary: 786

Connecting Narrative: 2807

Table of Contents

Abstracts

Systematic review……. 6

Service Improvement Project…… 7

Main Research Project ……. 8

Cognitive Models of post-traumatic stress following child maltreatment: A systematic review…….. 9

Introduction…… 10

Method……... 11

Results…… 14

Discussion…….. 24

Conclusion……..… 29

Implementing Multi-family therapy (MFT) within a community eating disorder service for children and young people (CEDS-CYP)…….. 41

Introduction…… 42

Method……... 45

Quantitative results…… 47

Discussion of quantitative data…….. 51

Qualitative results…….. 52

Discussion……. 59

Conclusion and recommendations……. 61

Why do some young adults develop Post-traumatic stress disorder (PTSD) following intimate partner violence?..... 69

Introduction…… 70

Method…… 74

Analytic Approach…….. 77

Results……. 79

Discussion …….. 85

Conclusion……... 91

Executive summary…… 98

Connecting narrative……... 100

Acknowledgments…….. 107

Appendices……. 108
Appendix 1: Systematic Review
Appendix 1.1 Trauma Violence and Abuse submission guidelines…… 108
Appendix 1.2 Supplementary material……... 113
Appendix 2: Service Improvement Project
Appendix 2.1 Journal of systemic therapies submission guidelines…… 127
Appendix 2.2 Additional study based on Service Improvement Project…….. 129
Appendix 2.3 Service Improvement Project: Ethical Approval…… 148
Appendix 2.4 Service Improvement Project: Participant Information Sheets…….. 154
Appendix 2.5 Service Improvement Project: Consent forms……... 163
Appendix 2.6 Service Improvement Project: Debrief sheets……... 167
Appendix 2.7 Service Improvement Project: Measures…. 170
Appendix 3: Main Research Project
Appendix 3.1 Journal of adolescent mental health submission guidelines……. 171
Appendix 3.2 Main Research Project: Ethical Approval… 183
Appendix 3.3 Main Research Project: Participant Information Sheet……... 184
Appendix 3.4 Main Research Project: Consent form……. 187
Appendix 3.5 Main Research Project: Debrief sheet…….. 188
Appendix 3.6 Measures: The REPAIR Project survey….. 191

Table of Figures

Figure 1.1 PRISMA diagram showing the systematic search process

Figure 2.1 Carers' and young people's experience of MFT sessions (SRS)

Figure 2.2 Caregivers' self-efficacy in supporting their child with ED (PVA)

Figure 2.3 Young people's ED-related behaviours and attitudes (EDE-A)

Figure 2.4 Young people's weight-for-height measurements

Figure 2.5 Themes identified from focus-groups with therapists and carers

Figure 3.1 A cognitive model of posttraumatic stress disorder – Adapted from Ehlers and Clark (2000)

Figure 3.2 Conceptual path model describing the relationships between individual factors, trauma characteristics, psychological processes and PTSD

Figure 3.3 Significant relations between individual factors, trauma characteristics, psychological processes and PTSD

Figure 4.1 A cognitive model of posttraumatic stress disorder – Adapted from Ehlers and Clark (2000).

Figure 4.2 Unique mechanisms of MFT for creating recovery-focused change

Table of Tables

Table 1.1 *Overview of study findings and effect size*

Table 1.2 *Implications of the review for practice, policy, and research*

Table 2.1 *Table of recommendations for implementing MFT in CAMHS-based CEDS-CYPs.*

Table 3.1 *Table of sample IPV-characteristics (N=399)*

Table 3.2 *Mean scores on measures of psychological processes by PTSD status*

Table 3.3 *Pair-wise correlations between psychological processes and PTSD*

Table 3.4 *Path model results for direct and indirect effects of psychological processes on PTSD and other psychological processes*

Table 3.5 *Path model results for regression of PTSD and psychological processes on individual factors and trauma characteristics*

Table 4.1 *Complete search strategy included in systematic review*

Table 4.2 *Table of studies included in systematic review*

Systematic Review - Abstract

While it is known that young people exposed to maltreatment or abuse are at elevated risk for developing post-traumatic stress disorder (PTSD), much of our current knowledge of processes that link trauma to childhood PTSD is based on single-incident, often accidental, trauma. Theoretical models highlight psychological processes of appraisals, memory and coping as important for the development of PTSD. The aim of this review was to synthesise the literature on the role of these key psychological processes in relation to PTSD in maltreated children and teens. Studies were included if they 1) identified a sample of maltreated individuals, ≤ 18 years old, 2) measured either a) trauma memory, b) appraisals, or c) post-trauma cognitive or behavioural responses and 3) measured PTSD. The systematic search of three electronic databases (APA PsychNet, PubMed and PILOTS) resulted in the inclusion of 36 papers, which described 31 studies and 33 unique samples. The review found significant gaps in our knowledge of how psychological processes link maltreatment to PTSD. Cognitive models of PTSD are appropriate for understanding outcomes following maltreatment, but further research is needed on all processes, particularly trauma memory. There is limited evidence concerning how maltreatment-related characteristics (e.g., chronicity, duration, type of abuse) influence psychological processes and in turn affect outcomes. This review recommends further research in this area, and suggests that, at the very least, comprehensive assessment should be conducted with all young people reporting maltreatment, to identify appraisals and coping strategies that will potentially impact on their ongoing adjustment.

Service Improvement Project - Abstract

Eating disorders are serious mental health conditions, which commonly begin in adolescence. Multi-family therapy (MFT) is recommended for young people with anorexia, but to date the majority of research on the effectiveness of this intervention has been conducted in highly specialist eating disorder services. In England there is a national transformation programme which aims to develop specialist community eating disorder services for children and young people (CEDS-CYP). Across many regions CEDS-CYP are in the early stages of development and the structure of these teams may vary. The current study aimed to evaluate whether MFT can be effectively implemented in a newly developed CEDS-CYP in the south-west of England. Across one pilot MFT group, quantitative data was collected to assess change in weight and eating disorder psychopathology (young people) and confidence in managing the illness (caregivers). Focus groups were conducted with caregivers and MFT facilitators to qualitatively explore how they experienced MFT. Results showed that MFT is valued by both service-users and clinicians in CEDS-CYP settings, but there are challenges associated with providing MFT in this context. Guidance for meeting these challenges is provided.

Main Research Project - Abstract

Intimate partner violence (IPV) is prevalent amongst young adults. This study aimed to explore whether cognitive models of post-traumatic stress disorder (PTSD) can be applied to understand post-trauma outcomes of young adults (18–25 years old) exposed to IPV. Participants (N=399) completed an online survey that assessed history of IPV, PTSD symptoms and post-trauma psychological processes of memory, appraisals, shame and thought suppression. Path modelling was used to investigate relations between psychological processes and IPV characteristics in the development of PTSD. In the context of all other psychological processes and IPV characteristics, results showed that sensory-based trauma memories, negative self-appraisals, and shame were associated with increased risk of PTSD, and that shame partly explained the relationship between memory and PTSD, and negative self-appraisals and PTSD. Sensory-based memories and shame were associated with increased use of thought suppression strategies, and there was trend-level evidence that thought suppression led to increased risk of PTSD. Thought suppression did not explain any relations between memory and PTSD or appraisals and PTSD. Being younger, having higher levels of education, experiencing a greater number of abuse-types, and being involved in IPV-related court proceedings were risk factors for PTSD, whilst recent experience of being in a non-abusive relationship was a protective factor. This study concluded that cognitive models of PTSD are applicable for understanding the development of PTSD following IPV but that the role of shame needs to be emphasised. Interventions that target maladaptive appraisals, shame and thought suppression may be useful in this population.

Cognitive models of post-traumatic stress following child maltreatment: A systematic review

Critical Review of the Literature

Hannah Wiseman

Doctorate in Clinical Psychology, 10 West Level 3, University of Bath, Claverton Down, Bath, BA2 7AY, United Kingdom

h.wiseman@bath.ac.uk

Word count: 7628

May, 2018

Supervisors: Catherine Hamilton Giachritsis and Rachel Hiller

Submitted to: Trauma Violence and Abuse

This journal was chosen for submission because it is dedicated to synthesising and summarising research related to trauma, violence and abuse, and aims to bring together knowledge to inform practice, policy and future research.

Introduction

Child maltreatment is defined as the abuse or neglect of an individual under 18 years of age that occurs in the context of a relationship of power, trust or responsibility (World Health Organisation [WHO], 2016). Maltreatment is a key risk factor for psychopathology across the lifespan (Fergusson, McLeod, & Horwood, 2013), with maltreated children demonstrating elevated risk for a range of psychological, emotional and behavioural difficulties (Éthier, Lemelin, & Lacharité, 2004). One such possible outcome is post-traumatic stress disorder (PTSD), a trauma-exposure specific disorder, characterised by symptoms of re-experiencing (e.g., "flashbacks"), avoidant coping, hyperarousal, and negative alterations in mood or cognitions (American Psychiatric Association, 2013). Various large-scale studies show that young people exposed to maltreatment are at elevated risk of PTSD (Ford, Vostanis, Meltzer, & Goodman, 2007; Saywitz, Mannarino, Berliner, & Cohen, 2000). PTSD is conceptualised within a cognitive framework (e.g., Ehlers & Clark, 2000), with diagnostic criteria and, subsequently, treatment pathways based on these models. However, much of the research on PTSD has focused on single-incident trauma events. Hence, it is important to establish if there is empirical support for existing models of PTSD following child maltreatment.

Models of PTSD

Cognitive models of PTSD (e.g., Brewin, Dalgleish, & Joseph, 1996; Ehlers & Clark, 2000; Foa, Steketee, & Rothbaum, 1989; Meiser-Stedman, 2002) highlight key psychological processes central to the development and maintenance of PTSD. For example, Ehlers and Clark's (2000) cognitive model highlights three psychological processes that contribute to the development of PTSD: trauma-memory, maladaptive appraisals, and coping strategies (see adapted version of this model, Figure 4.1, appendix 1.2). Whilst there is empirical support for these models for understanding trauma-responses in youth (Mitchell, Brennan, Curran, Hanna, & Dyer, 2017; Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012), the majority of this research has been conducted in single-incident trauma samples, such as road-traffic accidents or disaster traumas (Hiller et al., 2016; Trickey et al. 2012). This research focus is disproportionate given that interpersonal and chronic trauma is associated with two to three times greater risk of developing PTSD compared to single-incident trauma (Copeland, Keeler, Angold, & Costello, 2007; McCloskey & Walker, 2000).

PTSD and child maltreatment

Given the elevated risk of PTSD amongst maltreated populations, it is essential to understand if current cognitive models of PTSD accurately reflect the psychologicial phenomena experienced in response to maltreatment. Evidence suggests that cognitive and behavioural sequelae following single-incident trauma might differ to sequelae following chronic interpersonal trauma (Cloitre, Miranda, Stovall-McClough, & Han, 2005; Dejong, 2010). For example, experiencing enduring trauma across key developmental phases, possibly without the opportunity to recover from each traumatic experience, may give rise to specific beliefs about oneself and the world that will impact on-going adjustment (Thompson, English, & White, 2016).

Current guidelines for treating young people with PTSD state that the first line of intervention is trauma-focused cognitive behavioural therapy (TF-CBT), which is based on cognitive models of PTSD (National Institute of Clinical Excellence [NICE], 2005). TF-CBT aims to modify components highlighted within this model by helping individuals to effectively process trauma memories, challenge maladaptive appraisals, and develop more adaptive coping strategies (Cohen, Berliner, & Mannarino, 2010). Thus, it is important to understand if models of PTSD appropriately capture psychological sequelae following maltreatment, to assist in refining treatments to ensure they are in the most effective formats possible.

Aims

In summary, research relating to complex trauma and potential sequelae needs to be reviewed to inform practice, service-provision and policy. Therefore, this review investigated the current empirical evidence for key psychological processes linking maltreatment to PTSD, as highlighted in cognitive models of PTSD. Specifically, this review focused on synthesising empirical evidence for the role of (i) maladaptive appraisals, (ii) trauma-memory, and (iii) cognitive and behavioural coping responses. We aimed to provide a clearer understanding of the relevance of these processes to post-traumatic stress symptoms (PTSS) following maltreatment, while also drawing attention to gaps in the evidence-base.

Method

This review mainly followed Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines (Moher, Liberati, Tetzlaff, & Altman [The PRISMA Group], 2009). Following a scoping exercise to understand the broad extent of the literature, inclusion criteria were finalised and the review registered as a protocol (PROSPERO 2016: CRD42016051199).

Defining 'Maltreatment'

Harm to children can present differently in various contexts. For the purpose of this review, a framework of maltreatment presented by the National Society of Prevention of Cruelty to Children (NSPCC) was adopted (Cawson, Wattam, Brooker, & Kelly, 2000):

> Either a specific action towards a child by one or more adults or in some circumstances by an older child or children, or the omission of care which an adult had a responsibility to provide. It does not include general harmful conditions, such as environmental conditions, which apply to all children in a community, neighbourhood or other social group (Cawson et al., 2000, p. 3).

Search strategy

The literature search was conducted across three databases: PubMed, American Psychological Association (APA) PsychNet, and the Published International Literature on Traumatic Stress (PILOTS) database. Grey literature was searched using APA Psych extra. Search terms were developed with guidance from a subject-specific expert, and appropriate synonyms were identified using keyword searches in each database to determine additional descriptors of a concept. The final search strategy included words related to maltreatment (e.g., abuse OR maltreatment), children and adolescents (e.g., youth), appraisals (e.g., appraisals OR attribution), memory, coping (e.g., coping skills OR coping strategies) and PTSD (e.g., complex PTSD OR posttraumatic stress disorder). The full search strategy is presented in Table 4.1, appendix 1.2. Searches were conducted in August 2016 and September 2017 (Figure 1.1). Reference lists were hand-searched and relevant titles screened.

Selection criteria. Eligible studies had to (1) be an original study (e.g., excluding reviews); (2) be written in English; (3) identify a sample or subsample of maltreated individuals ≤ 18 years old; (4) measure either a) trauma memory, b) appraisals, or c) post-trauma cognitive or behavioural responses; and (5) measure PTSS, either via a diagnostic measure or symptom checklist. It is of note that papers were included if the authors understood a variable to be an appraisal or coping strategy, however certain variables may not be understood this way by other studies (e.g., some studies would operationalise shame as an emotion). Included studies could be of any research design, including randomised controlled studies, non-randomised controlled studies, longitudinal studies, cross-sectional studies, experimental studies and observational studies. Since the focus was on complex trauma from child maltreatment specifically, papers were excluded if they: 1) were a case study or unpublished thesis; 2)

focused on wider civil/community conflict including war or refugee samples; or 3) identified a sample who all experienced single-incident assault other than child maltreatment.

Inter-rater reliability. The lead author reviewed titles and abstracts of all studies identified in the electronic database search (N=2227). In line with PRISMA guidelines and recommendations for avoiding bias (McDonagh, Peterson, Raina, Chang, & Shekelle, 2008; The PRISMA group, 2009), a second reviewer screened a random 10% of abstracts. Inter-rater agreement was assessed by absolute agreement and Gwet's first order agreement coefficient (AC1, Gwet, 2002). Gwet's AC1 was preferred to Cohen's Kappa, as Kappa has shown to be sensitive to trait prevalence in the subject population and can produce low estimates of chance-corrected agreement even when absolute agreement is high (Feinstein & Cicchetti, 1990; Gwet, 2002). The prevalence of paper inclusion for abstract screening is low (12% included), so low Kappa coefficients would be expected. Absolute agreement among screeners was 89.7% (Gwet's AC1=0.868, 95% CI=0.812, 0.925).

Abstracts where there was disagreement were taken to a consensus meeting. In all cases of disagreement, the second reviewer had excluded articles that the primary reviewer had included (i.e., there was no evidence of over-exclusion). The first author then reviewed full texts of the included articles (N=306), and the second reviewer screened a randomly selected 10%. Absolute agreement was 100% (Gwet's AC1=1.00, 95% CI=1.00, 1.00).

Data Collection and Quality Assessment

Data extraction forms were developed to retrieve study information regarding publication details, recruitment processes, key sample characteristics and measures. Quality assessment checks were conducted using the cohort study checklist from the Critical Appraisal Skills Programme (CASP, 2017), adapted for observational studies. This assessed: recruitment, sample characteristics, ascertainment of maltreatment history, measurement of psychological processes and PTSS, statistical analyses and treatment of confounding variables, and consistency of results with existing evidence. Where applicable, additional items were used to assess the quality of participant follow-up. Each item was scored according to the extent to which methodological quality indicated it would be likely to introduce bias: 0 points 'likely', 1 point 'unlikely but requires more information'; and 2 points 'unlikely'. A percentage score was calculated for each paper. **Note.** *Many included studies had different stated aims than ones*

investigated in the current review. Therefore, low ratings in relation to this review do not necessarily reflect overall quality of each individual paper.

The lead researcher completed data extraction and quality assessment checks for all eligible papers. The second reviewer completed data extraction and quality assessment checks on 25% of papers. Absolute agreement was 98.9% (Gwet's AC1=0.985, 95% CI=0.956, 1.00).

Results

Description of the selected studies

Across the electronic database searches 42 papers were eligible. From there, 26 papers were included (studies included from the electronic database search conducted in August 2016, n = 12; studies included from the electronic database search conducted in September 2017, n = 14). Of those that were eligible but ultimately not included, the main reason for exclusion was that information was not provided about the relationship between the psychological process and PTSS. An additional 10 papers were identified by hand-searching reference lists. In total, 36 articles presenting findings from 31 unique studies with 33 samples were included in this review (Figure 1.1). Wolfe, Gentile, Michienzi and Sas (1991) analysed data from two different recruitment samples (victim-witness preparation sample and family services sample), and Pittenger et al. (2016) separated children and adolescents. To avoid introducing bias by separately reviewing different publications based on the same study this review will primarily discuss the 31 unique studies conducted.

Overview of included studies. Individual study details are presented in Table 4.2 (appendix 1.2) and key findings are presented in Table 1.1. Included studies were published between 1989 and 2017, with 17 of the 31 studies published in the last five years. Twenty of the 31 studies were derived from the US, eight in Canada, one in Hong Kong and two in Europe. Five papers investigated more than one psychological process. Twenty-eight papers explored appraisals and PTSS, 11 examined coping and PTSS, and two focused on memory and PTSS.

Design of studies. Twenty-six of the 31 studies presented cross-sectional data and five were longitudinal. The majority of studies were observational.

Nature of sample. Included studies covered young people aged 4 to 20 years of age. Most studies (21 of 31) had a mean age of 12 years old. The two studies where the age range went up to 20 years old, predominantly included young people under 18 and were thus retained in the review (Shenk, Putnam, Rausch, Peugh, & Noll, 2014; Srinivas, DePrince & Chu, 2015). In 30 of 31 studies, participants had come into

contact with services. Recruitment settings included treatment facilities, therapeutic or counselling services, child protective services, victim advocacy programs, child welfare services, residential services, child sexual abuse medical clinics, family services, primary-care services and court settings. One study recruited from secondary schools (Lam, 2015). Eight studies recruited only female participants; a further 16 studies had predominantly female samples (≥ 60%).

Nature of maltreatment. The majority of studies recruited youth with a substantiated maltreatment history. Eleven studies included children whose exposure to maltreatment had been ascertained in one of the following ways: abuse had been officially substantiated by protective services; perpetrator admission had been obtained; there was physical evidence consistent with abuse; trained staff had concluded that abuse was probable; or there was a police charge in relation to abuse. Two studies recruited at least some participants where maltreatment had not been confirmed (Freeman & Beck, 2000; Kaplow, Dodge, Amaya-Jackson, & Saxe, 2005; Shapiro, Kaplow, Amaya-Jackson, & Dodge, 2012). Eight studies predominantly relied on the young person self-reporting their trauma history, of which two had recruited from residential or protective services, so maltreatment was highly probable (Elzy, Clark, Dollard, & Hummer, 2013; Kaur & Kearney, 2015). Ten studies did not clearly describe how maltreatment history was ascertained; however, of these studies two had recruited from protective custody, so again maltreatment was probable (Kaur & Kearney, 2013; Ross & Kearney, 2017).

In 18 studies sexual abuse was the primary form of maltreatment; however, many participants would likely have experienced additional types of abuse given the high incidence of co-occurring maltreatment. A further nine studies recruited samples with mixed maltreatment histories. Three studies recruited samples with physical and/or sexual abuse histories (Kolko, Brown, & Berliner, 2002; Runyon & Kenny, 2002; Sharma-Patel et al., 2014) and one recruited participants exposed to physical abuse or neglect (Bertó et al., 2017).

Measurement of PTSS. PTSS data was mostly derived from self-report symptom checklists. Four studies included caregiver report of PTSS, and nine included an additional diagnostic interview. All studies except one used standardised measures for PTSS, and 14 different measures were used overall. Most commonly, studies used the PTSD subscale of the Children's Impact of Traumatic Events Scale-Revised (CITES-R, Wolfe et al., 1991; n=8). The one study that did not use a standardised

measure combined items from two validated measures of PTSS, although the resulting scale did not accurately reflect diagnostic criteria for PTSD (Spaccarelli, 1995).

Measurement of psychological processes. A range of self-report measures were used to assess trauma memory, appraisals and coping. Most studies referenced at least one standardised measure but did not always report psychometric information regarding validity of that scale. Two studies used measurement tools developed specifically for the purposes of the study and thus psychometric information for these measures were limited at the time of publication. These studies only provided information regarding Cronbach's alpha for the use of the scale in the current sample (the three papers by Feiring and colleagues on one sample; Wolfe, Sas, & Wekerle, 1994). One study measured 'avoidance' by coding forensic interviews, with the result that coded responses may reflect avoidance of the interview rather than cognitive avoidance of the abuse itself (Kaplow et al., 2005; Shapiro et al., 2012).

Treatment of abuse variables. To fully understand how maltreatment links to psychological outcomes, it is important to consider the context of the abuse and other factors that might relate to adjustment. Factors that might influence ongoing adjustment include socio-demographic variables, mental-health co-morbidities, and abuse variables such as duration and frequency of abuse, age of onset, relationship to perpetrator, type of abuse, removal from home, contact with perpetrator, and involvement in court processes. Twenty-two of the 36 papers considered socio-demographic factors in their analyses, whilst 13 controlled for at least two abuse variables when analysing relationships between psychological processes and PTSS. For many papers, the relationship between psychological processes and PTSS was not the focus of the study, therefore exploration of confounding variables was not relevant to the study aims.

Post-trauma appraisals

Blame.

Abuse-specific self-blame (ASSB). Eleven studies explored how abuse-specific self-blame (ASSB) was associated with PTSS. Five studies found a significant association, five did not, and one (longitudinal) study had mixed findings at different time points.

Specifically, five studies identified a significant association, with effect sizes ranging from small to medium (Alix, Cossette, Hébert, Cyr, & Frappier, 2017; Crouch, Smith, Ezzell, & Saunders, 1999; Kletter, Weems & Carrion, 2009; Pittenger et al., 2016; Wolfe et al., 1991). The standard deviation (SD) change in PTSS for a one SD change in ASSB ranged from 0.20 to 0.38, which are small effects by conventional

standards (Cohen, 1988). Studies that reported correlation coefficients reported effect sizes ranging from 0.37 to 0.53, representing small to medium effects. Thus, analytical differences might account for small versus small-medium effect sizes.

As noted, five studies did not find an association between ASSB and PTSS (Daigneault, Hébert, & Tourigny, 2006; Daigneault, Tourigny, & Hébert, 2006; Sharma-Patel & Brown, 2016; Srinivas et al., 2015; Wolfe et al., 1994; Wolfe, Gentile, & Wolfe, 1989). Quality pattern varied across the eleven studies which investigated this relationship, but generally the studies which did not find an association had slightly higher quality scores. Notably, none of the studies in which ASSB was significantly associated with PTSS controlled for abuse variables (such as duration or severity) in their analyses, whilst four of the five studies where non-significant associations were shown conducted multivariate analyses that accounted for abuse variables (n=3, Daigneault, Tourigny, & Hébert, 2006; Srinivas et al., 2015; Wolfe et al., 1994; Wolfe et al., 1989) or other psychological processes (n=1, Daigneault, Hébert, & Tourigny, 2006). Thus, conflicting findings might be explained by analytical differences, and it is possible that when abuse factors (e.g., duration of abuse) or other psychological processes (e.g., coping) are considered, the association between self-blame and PTSS does not persist.

Two of the eleven studies which looked at ASSB and PTSS were longitudinal. One longitudinal study had mixed findings (Feiring, Taska, & Lewis, 2002) and the other longitudinal study was one of the five studies that did not find an association between ASSB and PTSS (Sharma-Patel & Brown, 2016), Feiring et al. showed that ASSB at the time of abuse discovery did not predict PTSS one year later, but that reductions in ASSB across the course of a year were significantly associated with reductions in PTSS. In contrast, Sharma-Patel and Brown found that ASSB was not associated with change in PTSS over the course of several months. However, participants in this latter study received TF-CBT during this time-frame, so treatment most likely confounded the relationship between ASSB and PTSS. Participants in the Feiring et al. study did not receive intervention across the study period. Of note, some caution is warranted when interpreting longitudinal findings from Sharma-Patel et al. as their attrition rate was high and findings were not consistent with other treatment literature. The Sharma-Patel et al. study was also considered to be lower quality (36%) than the Feiring et al. study (69%).

Guilt. Whilst much of the maltreatment literature uses the terms ‘guilt’ and ‘self-blame’ interchangeably, three studies explored ‘guilt’ as a unique construct in relation

to PTSS (Gauthier-Duchesne, Hébert, & Daspe, 2017; Kletter et al., 2009; Wolfe et al., 1994). However, across these three studies, guilt was operationalised differently, which may account for differences in findings. For example, Wolfe et al. defined guilt as an 'emotional reaction', whilst Kletter et al. explored 'survivor guilt' (guilt that the event was worse for other people than for the individual). Gauthier-Duchesne et al. did not describe how 'guilt' was operationalised. Two of these studies found that guilt was significantly associated with PTSS (Gauthier-Duchesne et al.; Wolfe et al.). These were both high-quality studies (>70%), but findings should be interpeted with caution because both studies measured guilt using only a subset of items within the self-blame/guilt subscale of the CITES/CITES-R and there is no available psychometric information about this subset of the subscale. Furthermore, both of these studies assessed guilt and PTSS using sub-scales within the same measure.

Finally, Kletter et al. (2009), a high-quality study (89%) which explored 'survivor guilt', did not identify a significant association with PTSS. Given that maltreatment occurs on an individual basis (in comparison to other trauma types that might affect a group of individuals e.g., a natural disaster) it is perhaps unsurprising that this appraisal was not relevant to PTSS outcomes in this population.

Abuse-specific external blame. Only two studies investigated whether attributing blame to others was associated with PTSS (Feiring, Taska, & Chen, 2002; Kolko et al., 2002). Both studies investigated perpetrator blame, and one study also looked at caregiver blame (using two items 'This happened to me because my mother wasn't there' and 'This happened because my mother didn't know what was happening to me'). Both studies showed perpetrator blame was not associated with PTSS. Feiring et al. found caregiver blame was associated with PTSS immediately following abuse disclosure, though this association did not persist after one year. Both studies were considered to be good quality (>60%) therefore we can be relatively confident in these findings.

General attributions of self-blame (GASB). Six studies explored whether positive and negative attributions in relation to general events (i.e., not abuse specific) were associated with PTSS. For example, a general attribution would be 'I am to blame for things that go wrong', whereas an abuse-specific attribution would be 'the abuse happened because of the way I acted'. Two studies found a significant association between GASB and PTSS (Cohen & Mannarino, 2000; Daigneault, Hébert & Tourigny, 2006; Daigneault, Tourigny, & Hébert, 2006), two did not (Wolfe et al., 1991; Wolfe et al., 1989), and two were mixed. Among the mixed findings, Runyon and Kenny (2002)

found a significant association between GASB and PTSS in a sexually abused but not a physically abused subsample. Feiring, Taska, and Lewis (2002) found GASB was not associated with PTSS at time of disclosure but was significantly associated with PTSS one year later. Across studies that found a significant association between GASB and PTSS, the SD change in PTSS for a one SD change in GASB ranged from 0.16 to 0.53, representing small to medium effects. Overall, there was no clear pattern of differences in quality scores between studies that found an association and those that did not. However, the two studies that found an association used a different measure of GASB than the two studies that did not find an association, which could explain the disparity in findings. Two studies used the Children's Attributions and Perceptions Scale (CAPS, Mannarino, Cohen, & Berman, 1994), whilst the other two studies used the KASTAN-R (Kaslow, Tannenbaum, & Seligman, 1978). The CAPS is a brief measure that asks direct questions about blaming oneself for bad things, whilst the KASTAN uses hypothetical scenarios to infer whether an individual has a self-blaming style. The two different tools may measure slightly different concepts, which could account for differences in findings. Psychometric information for the original KASTAN is not available, so it is difficult to assess which measure is more psychometrically sound.

Shame. Five studies explored shame. Three studies found a significant positive association between shame and PTSS following maltreatment (Alix et al., 2017; Feiring Taska & Lewis, 1998; Feiring, Taska & Lewis, 2002; Srinivas et al., 2015), with effect sizes in the small to moderate range (SD change=0.20 to 0.60). Two studies found shame was not significantly associated with PTSS (Kletter et al., 2009; Mannarino, Cohen, Deblinger, Runyon, & Steer, 2012). These discrepant findings may be explained by differences in the age of study samples. Across studies that found an association between shame and PTSS, the mean age of participants was 15.8 years (excluding Feiring, Taska, & Lewis, 1998, 2002 which did not provide a mean sample age). In the two studies that did not find an association, the mean age was 10.5 years. Shame might be more relevant for individuals at certain developmental phases than at others; however more research is needed.

Disparate findings with respect to shame could also be due to methodological differences. All but one of the studies exploring shame were of reasonable quality (>60%), however two of the three studies that found an association between shame and PTSS had significant methodological limitations. Alix et al. (2017; quality assessment [QA]=41%) recruited a high proportion of participants with single-incident sexual abuse (limiting the generalisability of the findings to a wider maltreatment population) and did

not consider any possible confounders or effect modifiers in their analyses (such as demographic variables or abuse characteristics). Feiring, Taska and Lewis (1998, 2002) used a self-developed measure of shame, consisting of four items, with no validation reported.

Vulnerability or victim appraisals. Five studies explored victim or vulnerability appraisals, looking variably at personal vulnerability, victim appraisals, powerlessness and/or dangerous world. These appraisals were conceptualised differently by studies in this review, which limited the extent to which conclusions could be drawn about their relevance to PTSS.

Personal vulnerability. Two studies found that appraisals of personal vulnerability were significantly associated with some PTSD symptom clusters (Crouch et al., 1999; Wolfe et al., 1991). Crouch et al. (QA=65%) found a higher sense of personal vulnerability was significantly associated with higher overall PTSS (r=.65), whilst Wolfe et al. (QA=40%) found it was significantly associated with intrusive symptoms (r=.50) and avoidant symptoms (r=.42), but not overall symptom severity.

Victim appraisals. Kolko et al. (2002; QA=61%) explored perceptions of being a victim and found that perceiving oneself to have been 'treated unfairly' was associated with a PTSD diagnosis. Individuals diagnosed with PTSD had perceived victimisation scores that were 0.84 SDs higher than individuals without PTSD, which is a large effect (Cohen, 1988).

Powerlessness. Three studies explored perceptions of 'powerlessness' (Crouch et al., 1999; Pittenger et al., 2016; Wolfe et al., 1991). Crouch et al. found that feeling disempowered was associated with PTSS. This study was of higher quality (65%) than studies by Pittenger et al. and Wolfe et al., which showed powerlessness was not associated with PTSD (QA=40% for both). These two studies also had a high rate of single-incidence sexual abuse and may not reflect typical maltreatment samples.

Dangerous world. Three studies investigated appraisals about the world being dangerous (Crouch et al., 1999, QA=60%; Kaur & Kearney, 2015, QA=55%; Wolfe et al., 1991, QA=40%). Only Kaur and Kearney found that this was associated with PTSS. The Kaur and Kearney study was unique in that all individuals were in protective custody; all had varied maltreatment backgrounds (rather than sexual abuse histories); and the sample consisted of almost equal numbers of males and females. Abuse severity or removal from home might influence how individuals perceive the world, which in turn could influence adjustment.

Interpersonal appraisals.

Interpersonal trust. One study explored appraisals of 'interpersonal trust'. Cohen and Mannarino (2000; QA=78%) found small but significant associations between perceptions that individuals were disbelieved about their experiences and PTSS, and between beliefs that trusting others was 'risky' and PTSS.

Perceived negative reactions of others. Two studies explored perceived negative perceptions by others (i.e., 'being viewed negatively by others following maltreatment') and PTSS (Crouch et al., 1999; Wolfe et al., 1991). Crouch et al. identified a significant association between perceived negative perceptions by others and PTSS, whereas Wolfe et al. found that perceived negative perceptions were associated with intrusive symptoms but not with PTSS overall. The study by Wolfe et al. recruited a sample with a high incidence of single-incident sexual abuse, and findings from the study by Crouch et al. are likely to be more generalisable to populations exposed to chronic maltreatment. The study by Crouch et al. was also deemed to be of higher quality (65% vs. 40%).

Self in relation to others. Two high quality studies examined how maltreated youth viewed themselves in relation to others (Cohen & Mannarino 2000; Srinivas et al., 2015). Srinivas et al. found alienation – a perception of being disconnected and detached from others – was significantly associated with PTSS (SD change=0.42). Cohen and Mannarino found feeling 'different to peers' was significantly associated with PTSS (r=.32).

Derealisation and Depersonalisation. Appraisals of depersonalisation (feeling detached from one self) and derealisation (being unsure whether events or people are real) were not widely studied. One study found that depersonalisation and derealisation (combined) were associated with avoidance symptoms (Ross & Kearney, 2017, QA=65%). Kletter et al., (2009; QA=89%) investigated these concepts separately and found that only derealisation was associated with PTSS.

Perceived impact of maltreatment. Two studies explored appraisals of the impact of the abuse (Kolko et al., 2002, QA=61%; Pittenger et al., 2016, QA=40%). Both studies found that individuals who believed the abuse would impact their resources, relationships, emotional adjustment and need for help had greater PTSS. However, both studies created self-report measures to assess 'impact of the abuse', that had not been previously validated.

Combined appraisals. Ten studies explored how combinations of maladaptive appraisals (e.g. self-evaluation, evaluation of others, and perceptions of harm) jointly

influenced PTSS, rather than examining the independent influence of individual appraisals. The number of appraisals considered in combination ranged from two to five. Nine of ten studies found combinations of appraisals were significantly associated with PTSS (see Table 1.1). One study did not find an association between combined appraisals and PTSS, but this study recruited exclusively from secondary schools. These individuals may not have accessed services, and possibly experienced less severe maltreatment or were better able to adjust to their experiences (Lam, 2015). As a result, this sample may not be representative of chronic maltreatment populations. Studies that considered joint effects of appraisals on PTSS reported effect sizes (correlations) in the range of .30 to .72.

Trauma memory

Only two studies explored trauma memory and PTSS (Daigneault, Tourigny, & Cyr, 2004; Ogle et al., 2013). Daigneault et al. found neither the ability to integrate memory and affect, nor the ability to cohesively recall memories, was associated with PTSS. However, the measure used to assess these memory constructs had not previously been used in an adolescent population and was translated into French for the purpose of this study. Ogle et al. found maltreated adolescents reported less autobiographical memory specificity than non-maltreated peers, but specificity was not associated with PTSS. This suggests maltreatment might disrupt typical memory processes but that PTSS is not maintained by a memory bias for threat-related information. Findings from both studies must be interpreted with caution as quality was deemed low (28% and 39% respectively) and sample sizes were very small, which may have limited the ability to detect effects.

Post-trauma maladaptive coping

Behavioural coping.

Avoidant coping. Six studies explored avoidant coping and PTSS. Three studies found that avoidant coping was associated with PTSS, with effect sizes (correlation or partial correlation coefficients) ranging from small to moderate (0.26 to 0.66; Alix et al., 2017; Kaplow et al., 2005; Shapiro et al., 2012; Shenk et al., 2014). Findings should be interpreted with caution, as one study (Kaplow et al., QA=67%; Shapiro et al., QA=64%) used a measure of 'avoidance' that may not accurately reflect trauma-related avoidance, and two studies (Alix et al., QA=41%; Shenk et al., QA=82%) did not account for any abuse characteristics (e.g., severity, duration) in their analyses.

Two high quality studies did not find an association between avoidant coping and PTSS (Chaffin, Wherry, & Dykman, 1997, QA=94%; Daigneault, Hébert, &

Tourigny, 2006, QA=77%). In addition, one lower quality study showed avoidant coping might actually be adaptive for children with high levels of trauma (Elzy et al., 2013, QA=56%). All three studies considered demographic variables in their analyses, and two considered abuse characteristics. On the whole, findings from the six studies suggest avoidant coping may not relate to PTSS development when demographic and abuse characteristics are considered.

Approach coping. Three studies explored 'approach' coping (Chaffin et al., 1997; Daigneault, Hébert & Tourigny, 2006; Elzy et al., 2013), though this concept was operationalised differently across studies. Generally, approach coping includes seeking social support, positive reappraisal and problem-solving. Chaffin et al. did not include positive re-appraisal in their measure of coping, and Daigneault et al. did not include problem-solving. Of the three studies, only Elzy et al. found an association between approach coping and PTSS. This study was deemed lower quality (56%) than studies by Chaffin et al. (94%) and Daigneault, Hébert & Tourigny (77%) and this finding is not in line with research in single-incident trauma populations which suggests approach coping is adaptive (Thompson, Fiorillo, Rothbaum, Ressler, & Michopoulos, 2018).

Findings reported by Daigneault, Hébert and Tourigny (2006) and Chaffin et al. (1997) are more consistent with research in other trauma areas. These studies accounted for abuse characteristics in their analyses, whilst Elzy et al. did not. However, discrepancies might also be explained by differences in the study samples. Elzy et al. recruited individuals from residential care with complex maltreatment histories, whilst Daigneault, Hébert and Tourigny and Chaffin et al. recruited victims of sexual abuse from treatment centres.

In a further study, Daigneault et al. (2004) explored a coping style called 'meaning making', which considered how individuals evaluated their experiences and how this then guided social, creative or political actions. This study found no relationship between 'meaning making' and PTSS, but the measure used was not validated for use in this population and the quality of this study was low (28%).

Additional coping styles. Chaffin et al. (1997, QA=94%) found 'angry' coping was not associated with PTSS but that internalised maladaptive coping strategies (e.g., social withdrawal, self-criticism and resignation) were associated with hyperarousal symptoms. As might be expected, Shapiro et al. (2012, QA=64%) showed that adaptive coping strategies of 'positive affective' and 'emotional expressive' coping were not associated with PTSS.

Cognitive coping.

Dissociation. Five studies investigated dissociation and PTSS, and all studies found that increased dissociative responses were associated with increased PTSS (Crouch et al., 1999; Kaplow et al., 2005; Kaur & Kearney, 2013; Ogle et al., 2013; Ross & Kearney, 2017). Effects sizes were in the moderate range (correlation or partial correlation coefficients from .38 to .59). Quality scores ranged from 39 to 67%, but there was no obvious pattern between QA score and level of correlation.

Attention bias. Two studies explored cognitive interference for threat-related stimuli and how this might contribute to PTSS. One study found attentional bias towards threat (which could be indicative of selective attention for threatening information) did not differ between maltreated youth with or without PTSD (Freeman & Beck, 2000). Another study found that in comparison to healthy controls, maltreated individuals with PTSD displayed an attentional bias away from threat (which could be indicative of cognitive avoidance) but toward sad stimuli (Bertó et al., 2017). These two studies differed in the way they measured attentional bias (e.g., whether they used verbal or visual stimuli) and in the type of maltreatment that was present (sexual abuse vs physical abuse/negligence), which could have contributed to the heterogeneity in these findings. However, the study by Freeman and Beck was also considered lower quality than the study by Bertó et al. (28% vs. 50%).

Discussion

Despite a known risk of PTSD following interpersonal and chronic trauma, it has remained unclear whether cognitive models are appropriate for understanding the development and maintenance of childhood PTSD following maltreatment. This review aimed to synthesise existing literature on psychological processes implicated in PTSD in maltreated children, and to identify avenues for future research. Thirty-one studies were identified that measured how post-trauma appraisals, memory and coping were associated with PTSD in maltreated youth. These studies were reviewed, and conclusions were drawn about the role of post-trauma appraisals and coping in the development and maintenance of PTSD. However, only two of the thirty-one identified studies focused on post-trauma memory. Therefore, this review was limited in its ability to synthesise knowledge about the role of trauma memory in the development of PTSD following maltreatment.

Drawing more specifically on the literature which focused on post-trauma appraisals and coping, this review showed general support for cognitive models of PTSD following maltreatment. In line with research in single-incident trauma

populations (Mitchell et al., 2017; Trickey et al., 2012), this review found that post-trauma appraisals and coping strategies are likely to play a role in the development and/or maintenance of PTSD following maltreatment. However, within this broad cognitive framework, this review acknowledged that several gaps remain in our understanding of the specific cognitive mechanisms (e.g., the *specific* post-trauma appraisals) which may contribute to PTSD amongst maltreated youth. Meiser-Stedman (2002) highlighted that similar gaps exist within our knowledge base of PTSD amongst children and adolescents generally (i.e., not just within a maltreated population). This review supports the wider literature (e.g., Meiser-Stedman, 2002), and suggests that better understanding is needed of the specific cognitive processes that contribute to PTSD across the lifespan, particularly in the context of interpersonal trauma.

Post-trauma appraisals

Appraisals were the most widely studied psychological process in relation to PTSD, and a range of different appraisals were explored. However, only three of the twenty-eight papers which explored the relationship between appraisals and PTSD were longitudinal. Therefore, this review commented on observed associations between appraisals and PTSD but could not infer any conclusions about the causal nature of post-trauma appraisals in the development of this disorder.

This review suggested that features of maltreatment such as abuse duration, severity, relationship to perpetrator, and age of onset may influence how appraisals result in psychological maladjustment. For example, some studies found a significant association between self-blame and PTSS, but this finding did not persist when abuse characteristics (e.g., perpetrator relationship, severity, duration) were accounted for. This suggests that whilst self-blame may be present amongst young people exposed to maltreatment, this variable may not be as influential to the development and/or maintenance of PTSD when other factors (e.g., the type or severity of abuse experienced) are considered. Similarly, there was some evidence to suggest that the relationship between perceptions of vulnerability and PTSS varies according to chronicity and type of maltreatment, as well as whether maltreatment warranted removal from the home. Furthermore, the relationship between shame and PTSS may depend on the age and development of the child, such that older children are more affected by feelings of shame than younger children.

These findings support Ehlers and Clark's (2000) cognitive model, which proposes that trauma characteristics contribute to the development and maintenance of PTSD through their effects on coping strategies and appraisals. Furthermore, these

findings are in line with a meta-analysis of PTSD risk factors following primarily single-incident trauma, which showed that both objective trauma characteristics and individual factors influence PTSD development (Trickey et al., 2012). Much of the existing maltreatment literature does not consider the interplay of abuse features, psychological processes, and PTSS, and this could benefit from additional research.

A key finding of this review was that combinations of appraisals might be more relevant to the development of PTSS than individual appraisals alone. Indeed, studies showed that specific combinations of appraisals interact to give rise to on-going difficulties, and that appraisals considered jointly explained more variance in PTSS. For example, individuals with multiple unhelpful cognitions about their own vulnerability and that the world is a dangerous place might have a compounded sense of threat, which is central to the development of PTSD. Similarly, individuals who both blame themselves for the abuse and who also have a general sense of self-blame about negative events have been shown to have increased risk of PTSD (Daigneault, Tourigny, & Hébert, 2006). Thus, future research should explore which combinations of appraisals are most relevant to PTSD, while clinical assessments should gather an overview of an individual's set of appraisals in order to understand how these appraisals might interact to affect wellbeing.

Finally, some individual appraisals have received relatively little attention and warrant further investigation. A small number of studies showed that guilt, interpersonally-based appraisals and perceived 'impact of abuse' were significantly associated with PTSS, but further research of these concepts is indicated.

Trauma memory

The review found a paucity of research (only two studies) exploring the role of trauma memory in relation to PTSS in maltreated youth. This is despite the potentially central role of trauma-related memories in maintaining this disorder. These studies showed that although maltreatment might disrupt typical encoding of memory (Ogle et al. 2013), an over-focus on trauma memories, difficulties integrating trauma memories and affect, and problems recalling trauma memories were not significantly related to PTSS (Daigneault et al., 2004; Ogle et al., 2013). These findings are not consistent with research from single-incident trauma populations, which reports that poorly contextualised trauma memories with strong perceptual elements contribute to the maintenance of PTSD (e.g., Halligan, Michael, Clark, & Ehlers, 2003). Both studies that explored memory following maltreatment recruited small samples, which might contribute to the lack of significant findings. Further research is needed in this area,

given that memory processes are considered central to PTSD in other child and adult trauma-exposed samples.

Coping

Eleven papers explored the relationship between post-trauma coping and PTSD. Of these papers, only three used a longitudinal research design, again limiting the extent to which this review can discuss the causal nature of coping strategies in the development of PSTD. This may be a particular limitation when considered coping as a psychological process, as cognitive models of PTSD theorise that coping strategies may be problematic if and when they prevent maladaptive trauma memories and post-trauma appraisals from changing (Ehlers & Clark, 2000). This theoretical aspect of the cognitive model of PTSD may not be effectively explored by cross-sectional research designs. This review therefore discussed observed associations between different coping strategies and PTSS and did not infer conclusions about the causal role of this psychological process.

Interestingly, this review found that avoidance might not be associated with PTSS once demographic and abuse characteristics are accounted for. Indeed, two studies unexpectedly found that avoidant coping could be protective in the immediate aftermath of abuse (Chaffin et al., 1997; Elzy et al., 2013). This is not in line with much of the adult literature (Ullman & Filipas, 2005; Walsh, Fortier, & DiLillo, 2010). However, there is similar evidence from studies with high-risk groups of adolescents, which showed avoidant coping to be adaptive at higher levels of stress (Gonzales, Tein, Sandler & Friedman, 2001; Grant et al., 2000). It is possible that youth find avoidant coping increasingly helpful due to perceiving more circumstances to be beyond their control, and it is possible that avoidance might be a protective strategy in the shorter term. However, it is not yet clear what the longer-term implications of avoidant coping may be. These findings suggest treatment strategies should be tentative about targeting coping strategies that adolescents appear to be employing adaptively but should be aware that they might lead to negative outcomes in the long-term. Longitudinal research is needed to better understand these mechanisms.

In contrast, an extremely avoidant response in the form of dissociation was shown to be associated with PTSS in all five relevant studies. This is in line with literature that shows persistent dissociation is a risk factor for PTSD following a multitude of trauma types (Briere, Scott, & Weathers, 2005). It is suggested that dissociation might contribute to PTSD in one of two ways: it can act as an avoidance mechanism and/or can prevent effective processing of trauma memory. Findings from

this review suggest that dissociation should be routinely assessed in maltreated youth, and that it is likely to be an important treatment target.

Reviewing cognitive models of PTSD

This review reflected that current cognitive models of PTSD provide a useful framework for beginning to understand some of the responses that individuals have to maltreatment and that generally post-trauma appraisals and coping strategies are likely to influence ongoing adjustment. These models can be a useful tool for guiding assessment of individuals following maltreatment and identifying risk factors for ongoing difficulties. However, current cognitive models may be underspecified and it is likely that additional factors not captured by this framework contribute to the development and maintenance of PTSD following chronic and interpersonal trauma. This idea is supported by a recent meta-analysis of single-incident trauma amongst children and adolescents, which showed that both post-trauma variables specified by cognitive models of PTSD as well as additional factors related to pre-trauma functioning, peri-trauma emotions and post-trauma psychological environment were associated with PTSD (Trickey et al., 2012).

Limitations

Limitations of this review reflect general limitations in the literature. The majority of the research is cross-sectional, limiting the ability to infer conclusions about causal processes contributing to PTSS. There was a noticeable lack of research related to certain maltreatment types, and some of the tentative conclusions drawn in this review might not be relevant to populations exposed to neglect, emotional abuse or intimate partner violence. We were also unable to comprehensively explore how different processes (e.g., different types of appraisals) may interact to influence PTSS, and this would really improve knowledge of how applicable the cognitive model of PTSD is to understanding outcomes of maltreated children.

Implications for research and practice

Implications of this review for practice, research and policy are summarised in Table 1.2. From the available literature, there was general support for the relevance of cognitive models of PTSD for maltreated children, however several avenues for further research were identified. There was a broad consensus that both maladaptive appraisals and coping strategies can contribute to increased rates of PTSS in maltreated young people, and a cognitive framework could be used to guide assessment and identify any potentially maladaptive psychological processes. TF-CBT components that modify maladaptive appraisals could be useful in this population, but clinicians should be

tentative about targeting coping strategies used by young people without first facilitating learning of coping skills that might be more adaptive in the long-term. There is not enough evidence to support the role of memory in PTSD development, and memory-focused aspects of TF-CBT intervention might not be relevant to treatment.

Conclusion

This review concludes that a cognitive framework is generally appropriate for understanding the development and maintenance of PTSD following maltreatment. Cognitive appraisals, particularly in conjunction with one another, are significantly associated with an increased risk of PTSS following maltreatment and studies generally demonstrated small to moderate effect sizes. Maladaptive cognitive and behavioural coping responses were also shown to be significantly associated with PTSS, with studies again demonstrating small to moderate effect sizes. There was insufficient research to support the role of memory in PTSD following maltreatment, and this relationship needs further exploration. Better understanding is needed of the interplay between psychological processes, demographic factors, abuse-specific characteristics and PTSD, to enable clinicians to effectively identify young people most at risk for poor outcomes. This review highlights the need for all maltreated children to be assessed for potentially maladaptive appraisals and coping responses before they develop into clinical-level difficulties.

Table 1.1

Overview of study findings and effect sizes

Psychological Process	Significantly associated with PTSS (p≤.05)	Not significantly associated with PTSS (p≥.05)
Abuse-specific self-blame [1, 5, 7a, 7b, 10c, 16, 21, 25, 28, 29, 30, 31]	*r* = .37 .42 .47.52 SD change = -.20 .30	SD change = .07 .14 -.14 -.17
Guilt [12, 16, 31]	SD change = **.39** R^2 change = **.10**	SD change = **.10**
Perpetrator blame [10b, 17]		SD change = .00 -.01 .06 .15
Mother blame [10b]	SD change = **.17 .27**	SD change = **.05 .13**
General attributions of self-blame [4, 7a, 7b, 10a, 10c, 23, 29, 30]	*r* = .43 SD change = **-.16 .42** .53	*r* = .2 SD change = .01 -.06 .10 -.10
Shame [10a, 10c, 16, 19, 28]	SD change = .20 -.31 .45 .50 .55	Odds ratio **= 1.09** SD change = **.09**
Reduced perceived credibility [4]	*r* = .27	
Reduced interpersonal trust [4]	*r* = .27	
Perceived negative reactions of others [5, 30]	*r* = **.50** .54	
Feeling different to others [4]	*r* = .32	
Alienation [28]	SD change = **.42**	
Personal vulnerability [5, 30]	*r* = .42 .5 **.65**	
Perceived victimisation [17]	*d* = **.84**	
Powerlessness [5, 21, 30]	*r* = - **.53**	*r* = .01 .02 .16
Negative cognitions about the world [5, 15, 30]	SD change = .37	*r* = -.08 **.30**
Perceived impact of abuse [21]	*r* = .43 .44	
Perceived victim consequences [17]	*d* = **1.4**	
Depersonalisation [16]		SD change = -**.03**
Derealisation [16]	SD change = **.21**	
Combined appraisals [4, 8a, 8b, 10c, 14, 24, 27]	*r* = .55 **.70** .72 R^2 change **= .09 .**19 .25 *d* = .23 .31 .50	
Autobiographical memory specificity [20]		*r* = .31
Integration of memory and affect [6]		*r* = .00
Avoidant coping [1, 3, 7a, 9, 13a, 13b, 26]	*r* = .26 .34 .36 .66 SD change = -.26	SD change = **.15 .27**
Approach coping [7a 9]	*r* = **.36**	SD change **= -.06**
Meaning making [6]		*r* = -.27
Internalised coping [3]	SD change = **.36**	
Dissociation [5, 13a, 14, 20]	*r* = .38 **.54 .55** .59	
Attentional bias [2, 11]		*r* = <.17

[1] Papers included in this review are numbered in the reference list. The numbers reported next to each psychological process refer to the papers which examine this process and PTSS.

[2] SD change = The unit of change in the PTSS outcome measure that is associated with a one standard deviation change in the psychological process measure.

[3] The effect sizes reported in bold font are from studies with quality assessment scores ≥60%.

Table 1.2

Implications of the review for practice, policy, and research

Practice	Policy	Research
Assessment The cognitive model of PTSS can guide assessment of maltreated youth. Comprehensive assessment should gather an overview of: • Demographic factors • Abuse characteristics • Specific constellation of appraisals held • Coping strategies employed • Any evidence of disrupted memory processing Intervention • Appraisals: TF-CBT components which focus on modifying maladaptive appraisals might be useful for maltreated youth • Coping: Clinicians should be tentative about targeting coping strategies that youth are employing adaptively but should try to facilitate the learning of adaptive coping skills for long-term adjustment. • Dissociative coping responses are likely to be unhelpful to adjustment and should be targeted in intervention. • There is not enough evidence for the role of memory in PTSS amongst maltreated youth to recommend that memory-focused components of TF-CBT will be useful.	NICE guidelines for managing child abuse and neglect (NG76, 2017): • Children who have experienced abuse and neglect: NICE recommends multi systemic intervention for families or parenting interventions. • Young people who have been sexually abused and display symptoms of PTSS: NICE recommends group or individual TF-CBT. Nice guidelines for PTSD (CG26, 2005): • TF-CBT for young people who experience chronic PTSS symptoms This review suggests that all maltreated youth should be screened for potentially maladaptive appraisals and coping responses before these develop into clinical level difficulties. This review suggests that more evidence is needed to support the application of cognitive models of PTSS following maltreatment. In turn empirical findings need to be used to inform intervention, policy and service provision for maltreated children.	Future research avenues in relation to the development/maintenance of PTSS in maltreated youth: • The role of all psychological processes, particularly the role of trauma memory • The interplay of abuse features and psychological processes • Specific combinations of appraisals • The role of guilt, interpersonally-based appraisals and perceived 'impact of abuse' • The role of cognitive coping and particularly attentional bias • Longitudinal research, especially into how coping strategies influence ongoing adjustment • The role of psychological processes in maltreatment populations other than sexual abuse

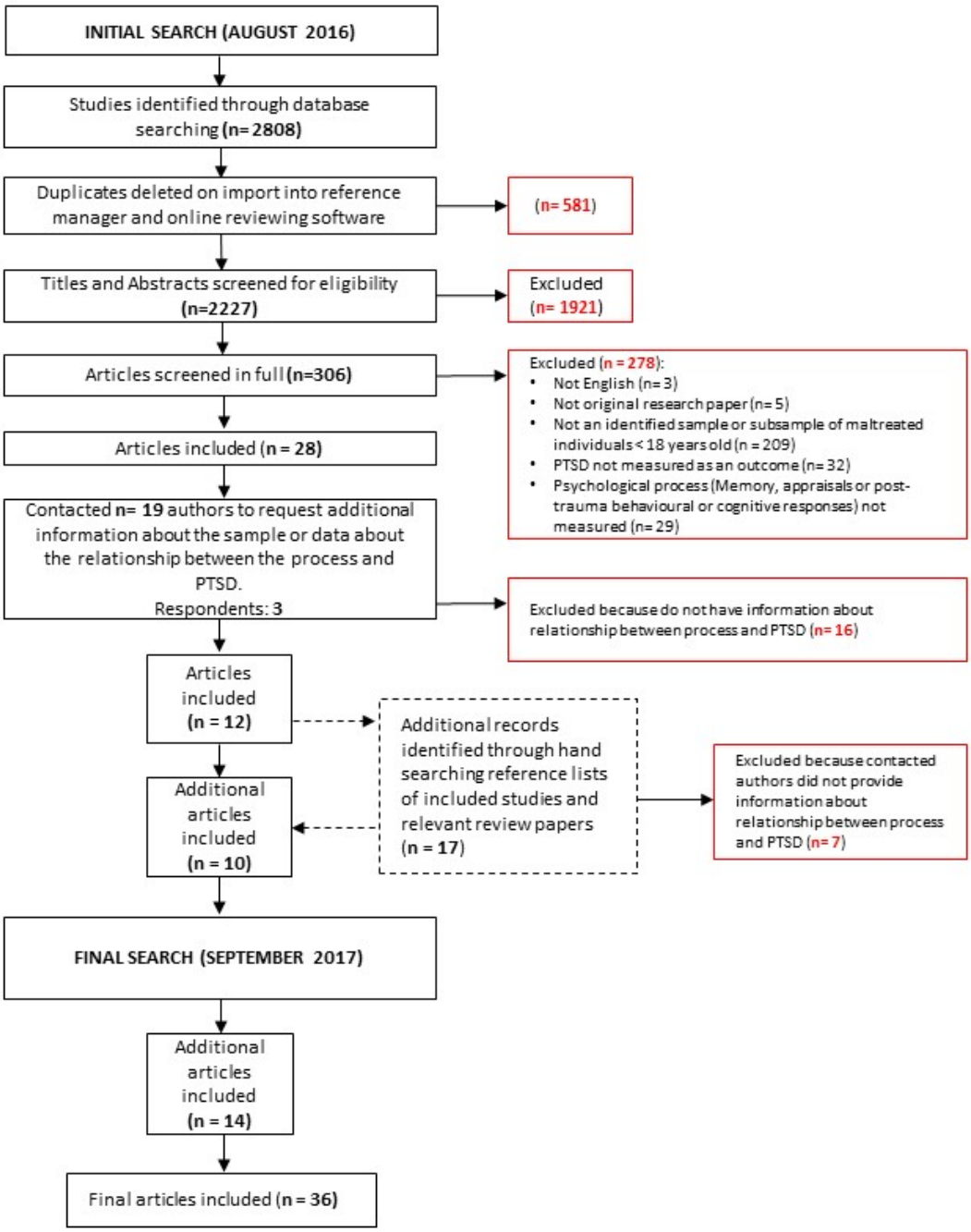


Figure 1.1 PRISMA diagram showing the systematic search process.

References

[1] Alix, S., Cossette, L., Hébert, M., Cyr, M., & Frappier, J. Y.(2017).Posttraumatic Stress Disorder and Suicidal Ideation Among Sexually Abused Adolescent Girls: The Mediating Role of Shame. Journal of Child Sexual Abuse, 26(2), 158–174.

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author.

[2] Bertó, C., Ferrin, M., Barberá, M., Livianosa, L., Rojo, L., & García-Blanco, A. (2017). Abnormal emotional processing in maltreated children diagnosed of Complex Posttraumatic Stress Disorder. Child Abuse & Neglect, 73(September), 42–50.

Brewin, C. R., Dalgleish, T., & Joseph, S. (1996). A dual representation theory of posttraumatic stress disorder. Psychological Review, 103(4), 670–86.

Briere, J., Scott, C., & Weathers, F. (2005). Peritraumatic and persistent dissociation in the presumed etiology of PTSD. American Journal of Psychiatry, 162(12), 2295–2301.

Cawson, P., Wattam, C., Brooker, S., & Kelly, G. (2000). Child maltreatment in the United Kingdom: A study of the prevalence of abuse and neglect. London: NSPCC.

[3] Chaffin, M., Wherry, J. N., & Dykman, R. (1997). School age children's coping with sexual abuse: Abuse stresses and symptoms associated with four coping strategies. Child Abuse & Neglect, 21(2), 227-240.

Cloitre, M., Miranda, R., Stovall-McClough, K. C., & Han, H. (2005). Beyond PTSD: Emotion regulation and interpersonal problems as predictors of functional impairment in survivors of childhood abuse. Behavior Therapy, 36(2), 119–124.

Cohen, J. A., Berliner, L., & Mannarino, A. (2010). Trauma focused CBT for children with co-occurring trauma and behavior problems. Child Abuse and Neglect, 34(4), 215–224.

[4] Cohen, J. A., & Mannarino, A. P. (2000). Predictors of treatment outcome in sexually abused children. Child Abuse and Neglect, 24(7), 983–994.

Cohen, J. W. (1988). Statistical power analysis for the behavioural sciences (2nd ed.). Hillsdale, NJ.: Lawrence Erlbaum Associates.

Copeland, W. E., Keeler, G., Angold, A., & Costello, E. J. (2007). Traumatic events and posttraumatic stress in childhood. Archives of General Psychiatry, 64(5), 577–584.

Critical Appraisal Skills Programme. (2017). Retrieved January 8, 2018, from http://www.casp-uk.net/checklists

[5] Crouch, J. L., Smith, D. W., Ezzell, C. E., & Saunders, B. E. (1999). Measuring reactions to sexual trauma among children: Comparing the Children's Impact of Traumatic Events Scale and the Trauma Symptom Checklist for Children. Child Maltreatment, 4(3), 255-263.

[7a] Daigneault, I., Hébert, M., & Tourigny, M. (2006). Attributions and Coping in Sexually Abused Adolescents Referred for Group Treatment. Journal of Child Sexual Abuse 15(3), 35-59.

[6] Daigneault, I., Tourigny, M., & Cyr, M. (2004). Description of Trauma and Resilience in Sexually Abused Adolescents. Journal of Trauma Practice, 3(2), 23–47.

[7b] Daigneault, I., Tourigny, M., & Hebert, M. (2006). Self-Attributions of Blame in Sexually Abused Adolescents: A Mediational Model. Journal of Traumatic Stress, 19(1), 153–157.

[8a] de Haan, A., Ganser, H. G., Münzer, A., Witt, A., & Goldbeck, L. (2017). Dysfunctional maltreatment-related cognitions in children and adolescents. Child and Adolescent Psychiatry and Mental Health, 11(1), 31.

Dejong, M. (2010). Some reflections on the use of psychiatric diagnosis in the looked after or " in care " child population. Clinical Child Psychology and Psychiatry, 15(1), 589-599.

Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. Behaviour Research and Therapy, 38(4), 319-345.

[9] Elzy, M., Clark, C., Dollard, N., & Hummer, V. (2013). Adolescent girls' use of avoidant and approach coping as moderators between trauma exposure and trauma symptoms. Journal of Family Violence, 28(8), 763–770.

Éthier, L. S., Lemelin, J.-P., & Lacharité, C. (2004). A longitudinal study of the effects of chronic maltreatment on children's behavioral and emotional problems. Child Abuse & Neglect, 28(12), 1265–1278.

Feinstein, A. R., & Cicchetti, D. V. (1990). High agreement but low kappa: I. The problems of two paradoxes. Journal of Clinical Epidemiology, 43(6), 543–549.

[10b] Feiring, C., Taska, L., & Chen, K. (2002). Trying to understand why horrible things happen: Attribution, shame, and symptom development following sexual abuse. Child Maltreatment, 7(1), 26–41.

[10a] Feiring, C., Taska, L., & Lewis, M. (1998). The role of shame and attributional style in children's and adolescent's adaptation to sexual abuse. Child Maltreatment, 3(2), 129–142.

[10c] Feiring, C., Taska, L., & Lewis, M. (2002). Adjustment following sexual abuse discovery: the role of shame and attributional style. Developmental Psychology, 38(1), 79–92.

Fergusson, D. M., McLeod, G. F., & Horwood, L. J. (2013). Childhood sexual abuse and adult developmental outcomes: Findings from a 30-year longitudinal study in New Zealand. Child abuse & neglect, 37(9), 664-674.

Foa, E. B., Steketee, G., & Rothbaum, B. O. (1989). Behavioral/cognitive conceptualizations of post-traumatic stress disorder. Behavior Therapy, 20(2), 155–176.

Ford, T., Vostanis, P., Meltzer, H., & Goodman, R. (2007). Psychiatric disorder among British children looked after by local authorities: comparison with children living in private households. The British Journal of Psychiatry, 190(4), 319-325.

[11] Freeman, J. B., & Beck, J. G. (2000). Cognitive interference for trauma cues in sexually abused adolescent girls with posttraumatic stress disorder. Journal of Clinical Child Psychology, 29(2), 245–256.

[12] Gauthier-Duchesne, A., Hébert, M., & Daspe, M.-È. (2017). Gender as a predictor of posttraumatic stress symptoms and externalizing behavior problems in sexually abused children. Child Abuse & Neglect, 64, 79–88.

Gonzales, N. A., Tein, J. Y., Sandler, I. N., & Friedman, R. J. (2001). On the limits of coping: Interaction between stress and coping for inner-city adolescents. Journal of Adolescent Research, 16(4), 372-395.

Grant, K. E., O'koon, J. H., Davis, T. H., Roache, N. A., Poindexter, L. M., Armstrong, M. L., ... & McIntosh, J. M. (2000). Protective factors affecting low-income urban African American youth exposed to stress. The Journal of Early Adolescence, 20(4), 388-417.

Gwet, K. (2002). Inter-Rater Reliability : Dependency on Trait Prevalence and Marginal Homogeneity. Statistical Methods for Inter-Reliability Assessment, 2, 1–9.

Halligan, S. L., Michael, T., Clark, D. M., & Ehlers, A. (2003). Posttraumatic stress disorder following assault: The role of cognitive processing, trauma memory, and appraisals. Journal of Consulting and Clinical Psychology, 71(3), 419–431.

Hiller, R. M., Meiser-Stedman, R., Fearon, P., Lobo, S., McKinnon, A., Fraser, A., & Halligan, S. L. (2016). Research Review: Changes in the prevalence and

symptom severity of child post-traumatic stress disorder in the year following trauma - a meta-analytic study. Journal of Child Psychology and Psychiatry.57(8) 884–898.

[13a] Kaplow, J. B., Dodge, K. A., Amaya-Jackson, L., & Saxe, G. N. (2005). Pathways to PTSD, Part II: Sexually Abused Children. The American Journal of Psychiatry, 162(7), 1305–1310.

Kaslow, N. J., Tannenbaum, R. L., & Seligman, M. E. P. (1978). The KASTAN-R: A Children's Attributional Style Questionnaire (KASTAN-R- CASQ). University of Pennsylvania: Unpublished manuscript.

[14] Kaur, H., & Kearney, C. A. (2013). Ethnic identity, family cohesion, and symptoms of post-traumatic stress disorder in maltreated youth. Journal of Aggression, Maltreatment & Trauma, 22(10), 1085-1095.

[15] Kaur, H., & Kearney, C. A. (2015). Healing from childhood and adolescent maltreatment and PTSD: An Examination of Posttraumatic Stress Symptoms among Maltreated Multiracial Youth. Journal of Aggression, Maltreatment & Trauma, 24(2014), 487–500.

[16] Kletter, H., Weems, C. F., & Carrion, V. G. (2009). Guilt and posttraumatic stress symptoms in child victims of interpersonal violence. Clinical Child Psychology and Psychiatry, 14(1), 71–83.

[17] Kolko, D. J., Brown, E. J., & Berliner, L. (2002). Children's perceptions of their abusive experience: measurement and preliminary findings. Child Maltreatment, 7(1), 42–55.

[18] Lam, K. Y.-I. (2015). Disclosure and psychological well-being of sexually abused adolescents in Hong Kong. Journal of Child Sexual Abuse, 24(7), 731-752.

Mannarino, A. P., Cohen, J. A., & Berman, S. R. (1994). The children's attributions and perceptions scale: A new measure of sexual abuse-related factors. Journal of Clinical Child Psychology, 23(2), 204–211.

[19] Mannarino, A. P., Cohen, J. A., Deblinger, E., Runyon, M. K., & Steer, R. A. (2012). Trauma-Focused Cognitive-Behavioral Therapy for Children Sustained Impact of Treatment 6 and 12 Months Later. Child Maltreatment, 17(3), 231–241.

McCloskey, L. A., & Walker, M. (2000). Posttraumatic Stress in Children Exposed to Family Violence and Single-Event Trauma. Journal of the American Academy of Child & Adolescent Psychiatry, 39(1), 108–115.

McDonagh, M., Peterson, K., Raina, P., Chang, S., & Shekelle, P. (2008). Avoiding Bias in Selecting Studies. In Agency for Healthcare Research and Quality: Methods Guide for Effectiveness and Comparative Effectiveness Reviews. AHRQ Publication No. 10(12)-EHC063-EF. Rockville, MD: Agency for Healthcare Research and Quality. April 2012. www.effectivehealthcare.ahrq.gov

Meiser-Stedman, R. (2002). Towards a Cognitive–Behavioral Model of PTSD in Children and Adolescents. Clinical Child and Family Psychology Review, 5(4), 217–232.

Mitchell, R., Brennan, K., Curran, D., Hanna, D., & Dyer, K. F. W. (2017). A Meta-Analysis of the Association Between Appraisals of Trauma and Posttraumatic Stress in Children and Adolescents. Journal of Traumatic Stress, 30(1), 88–93.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med, 6(7), e1000097.

[8b] Münzer, A., Ganser, H. G., & Goldbeck, L. (2017). Child Abuse & Neglect Social support , negative maltreatment-related cognitions and posttraumatic stress symptoms in children and adolescents. Child Abuse & Neglect, 63, 183–191.

National Institute of Clinical Excellence (NICE). (2005). Post-traumatic stress disorder: management. Retrieved from https://www.nice.org.uk/guidance/cg26

National Institute of Clinical Excellence (NICE). (2017). Child abuse and neglect: management. Retrieved from https://www.nice.org.uk/guidance/ng76

[20] Ogle, C. M., Block, S. D., Harris, L. S., Goodman, G. S., Pineda, A., Timmer, S., … Saywitz, K. J. (2013). Autobiographical memory specificity in child sexual abuse victims. Development and Psychopathology, 25(2), 321-332.

[21] Pittenger, S. L., Schreier, A., Meidlinger, K., Pogue, J. K., Theimer, K., Flood, M. F., & Hansen, D. J. (2016). Psychological Distress and Revictimization Risk in Youth Victims of Sexual Abuse. Journal of Interpersonal Violence, 1-31.

[22] Ross, E. H., & Kearney, C. A. (2017). Posttraumatic symptoms among maltreated youth using classification and regression tree analysis. Child Abuse & Neglect, 69, 177-187.

[23] Runyon, M. K., & Kenny, M. C. (2002). Relationship of attributional style, depression, and posttrauma distress among children who suffered physical or sexual abuse. Child Maltreatment, 7(August), 254–264.

Saywitz, K. J., Mannarino, A. P., Berliner, L., & Cohen, J. A. (2000). Treatment of sexually abused children and adolescents. American Psychologist, 55(9), 1040–1049.

[13b] Shapiro, D. N., Kaplow, J. B., Amaya-Jackson, L., & Dodge, K. A. (2012). Behavioral markers of coping and psychiatric symptoms among sexually abused children. Journal of Traumatic Stress, 25, 157–163.

[25] Sharma-Patel, K., & Brown, E. J. (2016). Emotion regulation and self blame as mediators and moderators of trauma-specific treatment. Psychology of Violence, 6(3), 400–409.

[24] Sharma-Patel, K., Filton, B., Tebbett, A., Tahilani, K., Swiecicki, C. L., & Brown, E. J. (2014). Patterns in Blame Attributions in Maltreated Youth: Association with Psychopathology and Interpersonal Functioning. Journal of Aggression, Maltreatment & Trauma, 23(6), 567–588.

[26] Shenk, C. E., Putnam, F. W., Rausch, J. R., Peugh, J. L., & Noll, J. G. (2014). A longitudinal study of several potential mediators of the relationship between child maltreatment and posttraumatic stress disorder symptoms. Development and Psychopathology, 26(1), 81-91.

[27] Spaccarelli, S. (1995). Measuring abuse stress and negative cognitive appraisals in child sexual abuse: validity data on two new scales. Journal of Abnormal Child Psychology, 23(6), 703–727.

[28] Srinivas, T., DePrince, A. P., & Chu, A. T. (2015). Links between posttrauma appraisals and trauma-related distress in adolescent females from the child welfare system. Child Abuse & Neglect, 47, 14-23.

Thompson, N. J., Fiorillo, D., Rothbaum, B. O., Ressler, K. J., & Michopoulos, V. (2018). Coping strategies as mediators in relation to resilience and posttraumatic stress disorder. Journal of Affective Disorders, 225, 153–159.

Thompson, R., English, D. J., & White, C. R. (2016). Maltreatment history as persistent risk: An extension of Li &Godinet (2014). Children and Youth Services Review, 64, 117–121.

Trickey, D., Siddaway, A. P., Meiser-Stedman, R., Serpell, L., & Field, A. P. (2012). A meta-analysis of risk factors for post-traumatic stress disorder in children and adolescents. Clinical Psychology Review, 32, 122–138.

Ullman, S. E., & Filipas, H. H. (2005). Gender differences in social reactions to abuse disclosures, post-abuse coping, and PTSD of child sexual abuse survivors. Child Abuse & Neglect, 29(7), 767–782.

Walsh, K., Fortier, M. A., & DiLillo, D. (2010, January). Adult coping with childhood sexual abuse: A theoretical and empirical review. Aggression and Violent Behavior, 15(1), 1-13

[31] Wolfe, D. A., Sas, L., & Wekerle, C. (1994). Factors associated with the development of posttraumatic stress disorder among child victims of sexual abuse. Child Abuse & Neglect, 18(1), 37–50.

[30] Wolfe, V., Gentile, C., Michienzi, T., & Sas, L. (1991). The Children's Impact of Traumatic Events Scale: A measure of post-sexual-abuse PTSD symptoms. Behavioral Assessment, 13(4), 359–383.

[29] Wolfe, V., Gentile, C., & Wolfe, D. A. (1989). The impact of sexual abuse on children: A PTSD formulation. Behavior Therapy, 20(2), 215-228.

World Health Organisation (WHO). (2016). Child maltreatment. Retrieved July 8, 2017, from http://www.who.int/mediacentre/factsheets/fs150/en/

Implementing Multi-Family Therapy (MFT) within a community eating disorder service for children and young people (CEDS-CYP)

Service Improvement Project

Hannah Wiseman
Doctorate in Clinical Psychology, 10 West Level 3, University of Bath, Claverton Down, Bath, BA2 7AY, United Kingdom
h.wiseman@bath.ac.uk

Word count: 6061

May, 2018

Supervisors: Catherine Butler, Sarah Latham, and Lauren Russow

Submitted to: Journal of Systemic therapies

This journal was chosen for submission because it is a practice-oriented journal that focuses on research exploring how systemic approaches are implemented with individuals, families and groups. This journal is designed to be accessible for clinicians and focuses on exploring techniques and methods that can be applied to practice.

Introduction

Eating disorders (ED) are serious mental health difficulties with significant physical and psychological consequences (NHS England, 2015). EDs commonly begin in adolescence, and can follow a chronic and disabling course into adulthood (Nagl et al., 2016). Despite the poor prognosis of EDs, offering evidence-based interventions to young people earlier in their illness results in better recovery rates, less risk of inpatient admission, and lower relapse rates (NHS England). Additionally, individuals receiving care from dedicated ED services have better outcomes (NHS England), and families are more satisfied with specialist care than with generic mental health services (Roots, Rowlands, & Gowers, 2009).

In 2015, the National Health Service (NHS England) developed a transformation plan to improve ED services for young people and to restructure services to create dedicated ED teams specifically for children and young people (Community Eating Disorder Services for Children and Young People (CEDS-CYP; NHS England, 2015). CEDS-CYPs are becoming increasingly established in England, however many of these services are in early stages of development and their structure varies across the country (NHS England, 2015). In some regions CEDS-CYPs sit within a generic child and adolescent mental health service (CAMHS), some are comprised of a network of CAMHS clinicians across a larger region, and some regions have a dedicated CEDS-CYP that sits separately from CAMHS. In areas without a specialised team young people are typically referred to generic CAMHS and seen by a practitioner with some expertise in ED.

Another recent development in ED services is the transformation project for children and young people's mental health services, 'Children and Young Person's Improving Access to Psychological Therapy': CYP-IAPT. CYP-IAPT trains clinicians in evidence-based therapies recommended by the National Institute of Clinical Excellence (NICE). CYP-IAPT has a training stream for ED, which includes three interventions: family based treatment (FBT, Lock & Le Grange, 2015), systemic therapy for anorexia/bulimia nervosa (SFT-AN/SFT-BN), and Multi Family Therapy for AN/BN (MFT, Eisler, Lock, & Le Grange, 2010). FBT and SFT-AN/SFT-BN are broadly similar models with nuanced differences in approach. In practice therapists generally draw on both manuals. Regardless of which service they access, the first line of treatment recommended for young people with ED is SFT or SFT with MFT (NICE, 2017).

The South London and Maudsley (SLaM) highly specialised ED service has helped to develop manuals for therapies included in CYP-IAPT ED training. SLaM's interventions have been shaped through clinical experimentation within their service (Eisler, Simic, Blessitt, & Dodge, 2016). SFT is now embedded in ED treatment pathways across the UK, but MFT is a more recent development. MFT is an outpatient intervention in which families attend an intensive, four-day group followed by follow-up days over several months. MFT is informed by systemic theory, which describes that family systems become organised around a young person with an ED and that all family routines and relationships become dominated by this illness (Eisler, 2005). Patterns of interaction develop within the family that inadvertently serve to maintain and perpetuate the young persons difficulties. Common patterns that have been observed in families with a young person with an ED include: a narrowed focus on the 'here and now'; reduced progression through typical life-cycle transitions; enmeshed relationships between particular family members, and interactions dominated by discussion of ED symptoms, food and weight (Eisler et al., 2016).

MFT aims to identify and change the ED-focused patterns of interaction that have developed within the family system by implementing specific systemic techniques. For example, MFT includes 'sculpt' activities where families are asked to visually represent how their families have become organised around the ED (Heinl, 1987). Families may be asked to use objects to represent the relationships amongst different family members and between family members and the ED, or they may be asked to represent these relationships by physically placing themselves in different positions around each other. MFT also uses externalising and role-play techniques to help families better understand the young persons experiences, to reduce any feelings of shame or blame, and to develop a shared understanding of the ED within the family (Eisler et al., 2016). In addition, during the course of MFT therapists are able to observe the interactions that present around mealtimes and can support families to identify and challenge patterns that may be accommodating the ED and maintaining the young persons difficulties. By being around other families, MFT helps families to identify common ways that they respond to the ED which may lead to difficulties persisting. This 'normalises' the experiences that families go through, and also allows them to recognise how they may have responded to the ED such that other life cycle processes and typical family routines may have become disrupted.

Both carers and young people report that MFT is helpful (Scholz & Asen, 2001), and carers who have attended MFT report increased autonomy and confidence in

supporting their child (Depestele, Claes & Lemmens, 2015; Engman-Bredvik, Carballeira Suarez, Levi, & Nilsson, 2016). MFT is more economical than inpatient interventions, and preferred by service-users (Scholz, Rix, Scholz, Gantchev, & Thömke, 2005). Young people who attend MFT have also demonstrated decreases in ED symptomology (Hollesen, Clausen, & Rokkedal, 2013). However, most research demonstrating the efficacy of MFT has been conducted within highly specialised ED services (e.g., SLaM). There is limited understanding of how MFT can be offered in CEDS-CYPs, and particularly ones that are situated within or alongside generic CAMHS teams. It is important to better understand this, as CEDS-CYPs continue to be established and developed across the UK.

Local context

The Bristol region consists of four CAMHS localities: North Bristol, East/Central Bristol, South Bristol and South Gloucestershire. At the time of conducting this project the region was beginning to develop a CEDS-CYP, which is now comprised of a dedicated, specialist ED hub as well as a network of CAMHS clinicians across these localities, who have an interest in EDs. Young people are seen by a CEDS-CYP clinician in one of the localities. Until recently, the localities offered varied treatment pathways. National CYP-IAPT ED training was provided in attempt to unify the treatment approach across the four localities. Following training, the first MFT group for young people with anorexia nervosa (AN) was piloted in Bristol and South Gloucestershire (B&SG) from November 2015 to June 2016.

Aims

Nationally, the development of CEDS-CYPS is in its early stages and the delivery of interventions and the treatment pathways that these services offer continues to be refined. As national guidelines recommend the implementation of MFT interventions for young people with EDs, the Bristol-based CEDS-CYP requested for a project to be undertaken to evaluate the feasibility and usefulness of offering this intervention within their newly-emerging service. The service was particularly interested in whether families that accessed the pilot MFT group found it useful and if they valued the inclusion of this treatment alongside the treatments they were already receiving. It was hoped that by evaluating whether NICE-recommended MFT can be effectively offered in the new service format for young people with EDs, the Bristol-based CEDS-CYP could improve the development of the treatment pathway that they offer.

In line with the service request, this project aimed to explore the experiences of young people with AN and their families who attended the pilot B&SG MFT group, and to explore whether MFT can be adapted effectively within a CEDS-CYP setting. In addition, this evaluation drew on experiences of more established CEDS-CYPs in the region, in order to inform and improve how MFT might be incorporated into the B&SG service.

Method

The BS&G MFT Group

The MFT group comprised four intensive days, followed by five follow-up sessions over seven months. The group was open to individuals accessing both inpatient and outpatient ED services. Five families attended the group, which was facilitated by two clinical psychologists and two family therapists. Two individuals from outpatient services and three adolescents from inpatient services attended. All individuals were female and had a mean age of 14.6 (range 14-16 years). Their mean weight for height percentage was 85% (range 82% to 89%), which is outside the range of a healthy weight for height and consistent with a diagnosis of AN. Three adolescents attended with their mother and father, one with her grandparent, and one alternately attended with her mother, father, and stepfather. All families received SFT alongside MFT.

Procedure

MFT attendees. Convenience sampling was used to evaluate the group. All MFT attendees were approached by the lead group facilitator and given written information about the study. Group attendees routinely completed sessional measures throughout the course of the group and all attendees consented for this data to be included in this study.

All attendees were invited to take part in a focus group about the MFT group. Four carers from three of the families enrolled in the group consented to take part. Young people chose not to participate in a focus group but some young people provided written feedback about the group and consented for this to be included in this study.

Clinicians. Two B&SG clinicians who facilitated the pilot MFT group (site 1) were approached by the lead group facilitator and given information about this study. These clinicians were not involved in the development of this study. Both consented to take part in a semi-structured interview about their experiences of facilitating this intervention.

The lead group facilitator also approached MFT clinicians from two other CEDS-CYPs in the south-west (Site 2: Exeter, Site 3: Weston) and invited them to take

part in a semi-structured interview about their experiences of MFT. Both of these CEDS-CYPs are situated within community-based CAMHS services and have already rolled-out CYP-IAPT and implemented MFT in their treatment pathways. It was hoped that understanding the experiences of offering MFT within more established CEDS-CYPs could inform how B&SG offers MFT in future. Two clinicians from each site (either clinical psychologists or family therapists) consented to take part.

Quantitative Measures

The Parents Versus Anorexia Scale (PVA). Caregivers completed the PVA on the first and fourth day of MFT, and at all subsequent follow-up sessions. The PVA assesses how confident caregivers feel in supporting their child with their illness. Scores range from five to thirty-five, with higher scores reflecting higher self-reported parental efficacy. The PVA has adequate reliability and validity (Chronbach's α, 0.78, Rhodes, Baillie, Brown, & Madden, 2005).

Eating Disorder Examination Questionnaire for Adolescents (EDE-A). Young people completed the EDE-A on the first and fourth day of MFT, and at all follow-up sessions. The EDE-A measures the frequency with which an individual has experienced eating-disorder-related behaviours, symptoms and ideations across the past month. The EDE-A has four subscales which measure the frequency/severity of restraint, shape concerns, weight concerns and eating concerns. Mean scores are calculated for each subscale. Higher scores reflect increased frequency/severity of each key aspect of ED psychopathology, with scores ranging from zero (I have not been concerned at all) to six (I have been concerned a lot or every day). The EDE-Q (EDE-Q, Carter, Stewart, & Fairburn, 2001; Fairburn & Beglin, 1994) -- from which the EDE-A has been adapted -- demonstrates adequate reliability and validity (Cronbach's α across subscales = 0.78 to 0.93, Luce & Crowther, 1999). The EDE-A has been validated for use with adolescents (Carter et al., 2001; Passi, Bryson, & Lock, 2003).

Session Rating Scale (SRS). All attendees completed the SRS every session. The SRS assesses individuals' perceptions of the session in regards to four key aspects: relationship to therapist; goals and topics; approach or method; and overall satisfaction. For each aspect of the SRS individuals complete a visual analogue rating scale by marking a cross on a line (ranging from zero to ten). A sum score is calculated to generate an overall session rating score (ranging from zero to forty, with higher scores reflecting more satisfaction). This brief SRS measure is recommended as a clinical rather than research tool, but nevertheless demonstrates adequate validity and good reliability (Chronbach's α = 0.88, Duncan et al., 2003).

Weight-for-height. Young people's weight and height were regularly recorded as part of ongoing treatment separate to MFT. Weight-for-height was calculated using the data recorded nearest to the timing of each MFT session. All attendees consented to accessing their data. Weight-for-height percentages provide information about a young person's weight in comparison to their expected weight for their gender, height and age. A weight-for-height percentage of 100% indicates that an individual is at 100% of the weight that they are expected to be for their gender, height and age.

Qualitative data

All focus groups followed a semi-structured interview schedule. All focus groups were conducted by the main researcher, who was not involved in facilitating the MFT intervention and did not have any prior relationships with any participants. Focus groups were audio-recorded and transcribed.

Qualitative data was analysed using thematic analysis (Braun & Clarke, 2006). In line with recommendations for qualitative research the lead researcher familiarised themselves with the data through the process of transcribing the data itself, and by reading each transcript several times (Nowell, Norris, White, & Moules, 2017). The researcher identified inductive codes within the data but was also aware of their pre-existing beliefs and ideas about what might be valuable or challenging about offering MFT. A second researcher reviewed the initial codes and themes and identified an additional theme regarding wider-service challenges. Themes were fully defined and finalised at this point.

Ethical Approval

This study was approved by the University of Bath and received site-specific approval from research and development teams at each participating site.

Quantitative Results

Statistical methods were not used in this pilot study because the sample size was not sufficiently large to draw inferences about the population of young people with AN who attend MFT. Trends were explored to identify if this sample of participants benefitted from MFT, but findings cannot be generalised.

How did service-users experience MFT?

Mean SRS scores were calculated for each session (possible scores ranging from zero to forty). Scores were analysed separately for young people and carers (Figure 2.1). Results showed that overall participants were quite satisfied with the MFT programme however young people generally rated the sessions lower than caregivers.

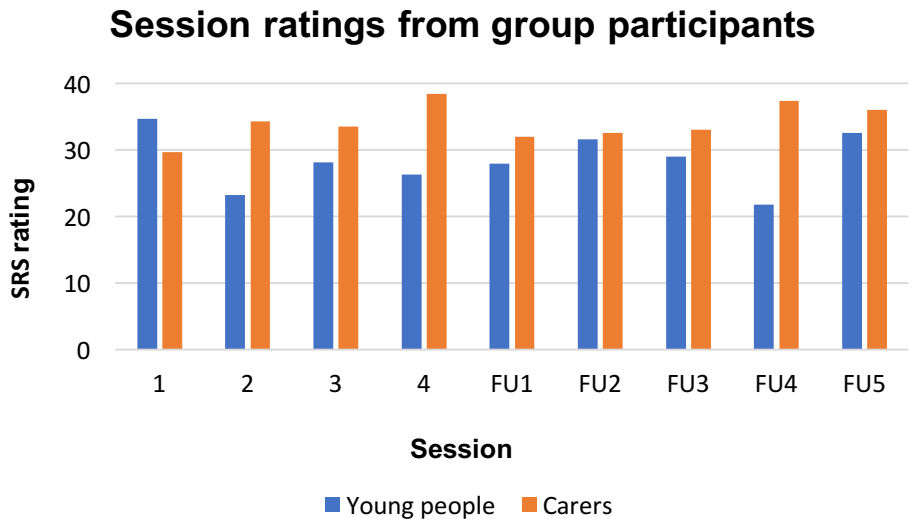


Figure 2.1. Carers' and young people's experience of MFT sessions (SRS)

Was MFT effective in this setting?

Three indicators of recovery-focused change were explored: caregiver's self-efficacy in supporting their child, and young peoples' ED psychopathology and weight-for-height. There was substantial incomplete (missing) data, especially across follow-up sessions. This was due largely to lack of group attendance, impacted by factors including the severity of young peoples' illness and kinship arrangements. Due to excessive missing data past T3, trends were explored across the first three time-points: T1 (first day of intervention); T2 (fourth day of intervention); and T3 (first follow-up session two weeks after the four-day intervention). Across these three time-points only one data point was missing from the young people's data. Across the seven caregivers, data was sufficiently complete for five individuals (only one data point of PVA missing), so five caregivers were included in analysis. Mean scores were calculated at each time-point for each measure and presented to illustrate potential exploratory trends.

Carer self-efficacy

On average, caregiver self-efficacy scores increased from T1 to T2 but levelled off from T2 to T3 (Figure 2.2).

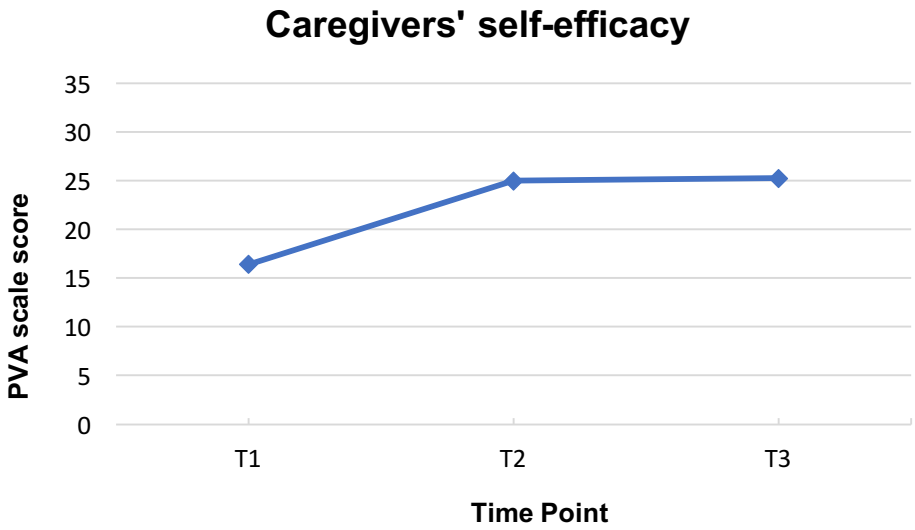


Figure 2.2. Caregivers' self-efficacy in supporting their child with ED (PVA).

Eating disordered behaviour

With the exception of Eating Concerns, young people's EDE-A scores decreased from T1 to T3 (Figure 2.3), indicating that the severity and frequency of their ED psychopathology reduced. The most pronounced decreases were observed for Dietary Restraint and Weight Concerns. This shows that individuals reported reduced avoidance or restraint of food, were less dissatisfied or preoccupied with their weight, and were less motivated to lose weight. Eating concerns increased across the course of MFT, demonstrating that individuals reported increased levels of: fear around social eating; fear of losing control over eating; guilt around eating, eating in secret; and preoccupation with food or calories.

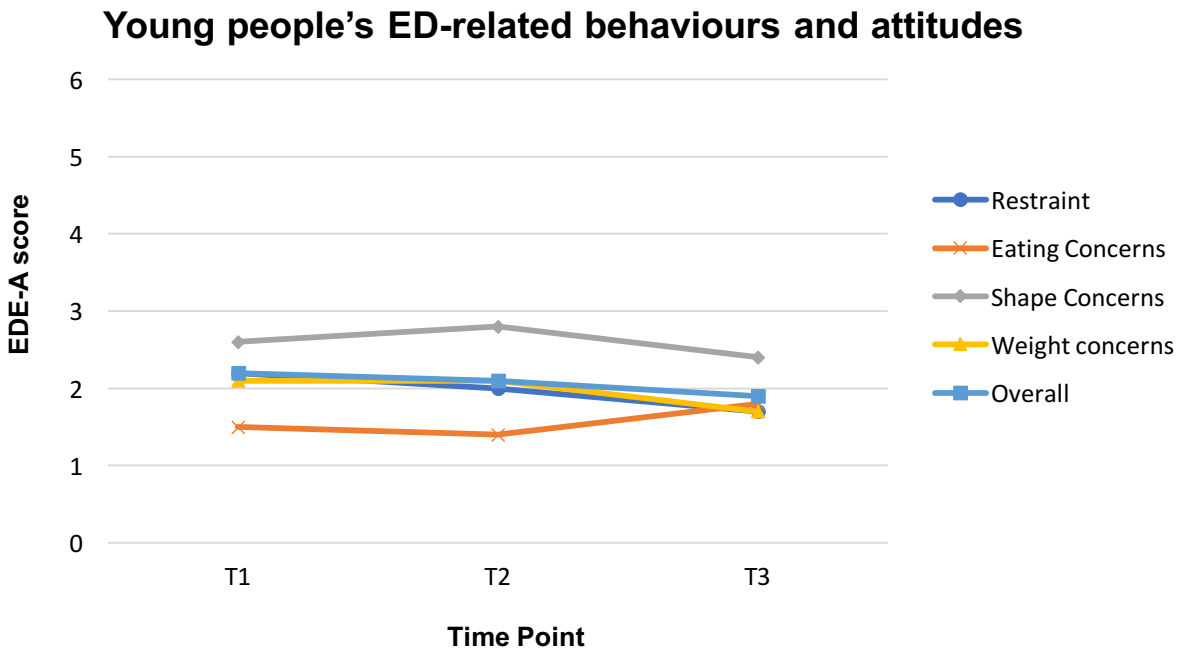


Figure 2.3. Young people's ED-related behaviours and attitudes (EDE-A)

Weight-for-Height

Due to variability in when individuals were weighed, the following five timepoints were explored: 1 - first day of MFT; and FU1, FU2, FU3 and FU4 - first, second, third and fourth follow-up sessions. No data was missing across these time-points. Weight-for-height percentages for all young people (A-D) were examined individually (Figure 2.4). At FU4 all individuals remained below their ideal weight, but all individuals had increased weight-for-height.

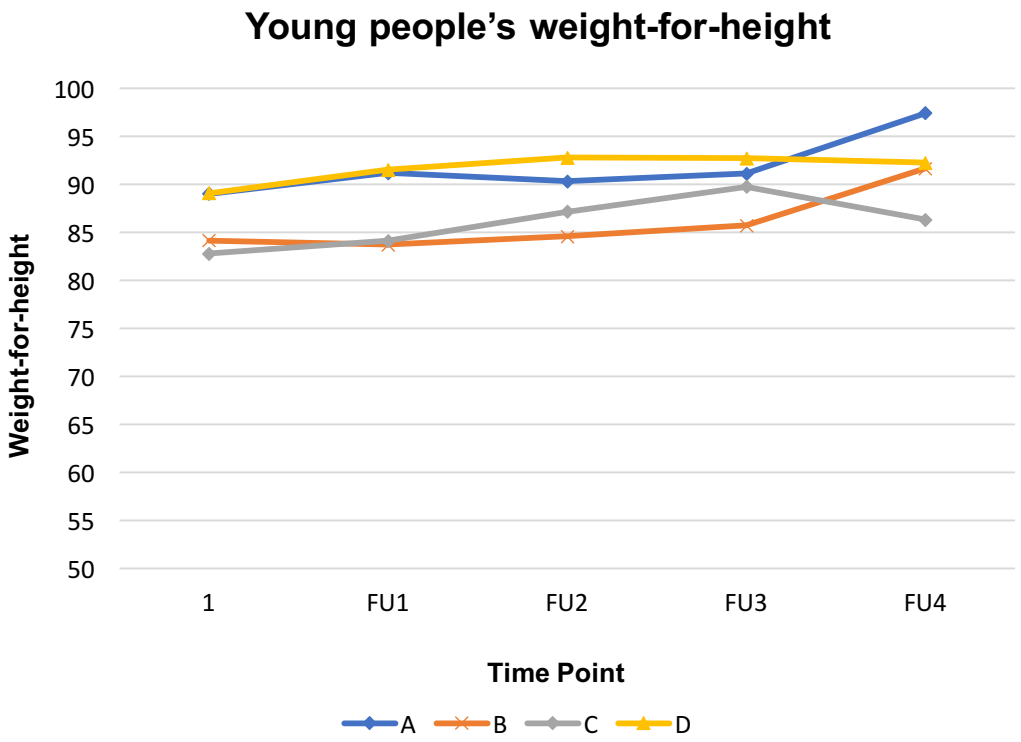


Figure 2.4. Young people's weight-for-height measurements

Discussion of Quantitative data

Whilst findings are limited by sample size, positive trends observed in this evaluation suggest that MFT may be a useful intervention to offer within CEDS-CYPs. Across MFT, caregiver's knowledge of ED and confidence supporting their child increased, which is in line with research in specialist ED services (Depestele et al., 2015; Engman-Bredvik et al., 2016). Promoting parental self-efficacy is important, as it predicts positive adolescent outcomes (Robinson, Strahan, Girz, Wilson, & Boachie, 2013).

The impact of MFT on weight and ED-related behaviours and psychopathology was less obvious. Individuals' weight generally increased across MFT, though all individuals remained below the ideal weight for their height and age. Individuals generally demonstrated decreases in weight concerns and restraint behaviours, whilst changes in eating and shape concerns were variable. This pattern is in line with other ED treatments, which typically find motivation to change and behavioural change precedes cognitive change (Murphy, Straebler, Cooper, & Fairburn, 2010). Eating and shape concerns are often observed at early stages of treatment, when weight is being restored.

Carers were generally satisfied with MFT sessions. Young people's satisfaction ratings were lower. This is not surprising, as much of the MFT content is challenging and incongruent with desires to lose weight. Whilst being aware of this context, SRS ratings should continue to be discussed openly with participants. This allows them to feel heard and empowered, and allows clinicians to tailor intervention to individual needs (Low, Miller, & Squire, 2012).

Qualitative Results

Focus groups were analysed using thematic analysis (Braun & Clarke, 2006). Three themes were identified in relation to offering MFT in a CAMHS based CEDS-CYP: the value of this intervention; the set-up and structure; and associated challenges (Figure 2.5).

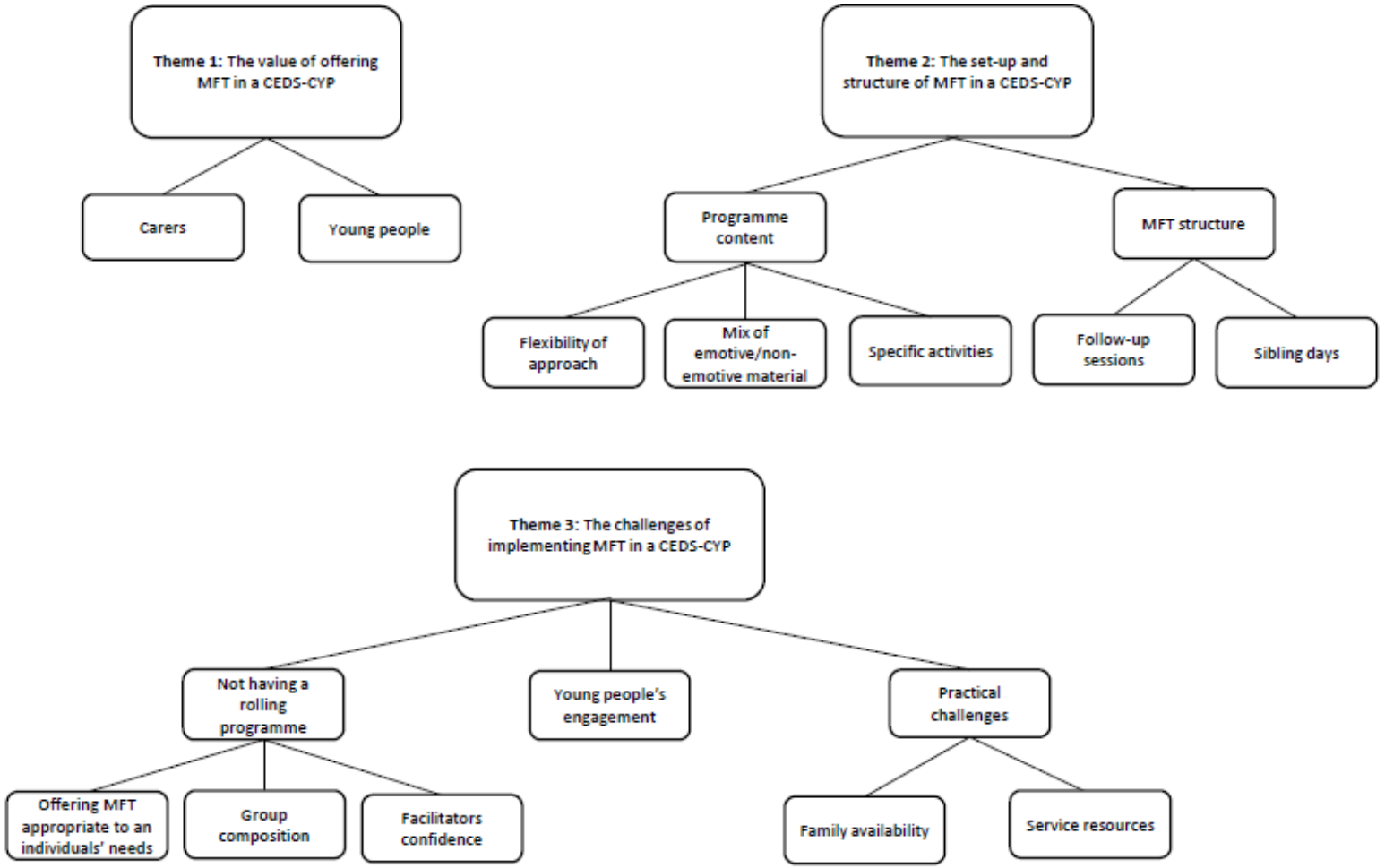


Figure 2.5 Themes identified from focus-groups with therapists and carers

Theme 1: The value of offering MFT in a CEDS-CYP

Carers. Carers were positive about MFT. They frequently reported that it was helpful sharing experiences with others.

Carer C: "I found it very helpful, like everyone else says for meeting people going through the same situation but also I think some of the sessions were informative…some of them…made quite a big impact on me."

Young people. Carers and clinicians who facilitated the pilot B&SG group were concerned that young people did not engage with the group. However, therapists from sites 2 and 3 reflected that, despite initial reluctance to engage, they believed young people benefited from MFT.

Carer A: "our daughter…she didn't want to be there, didn't want to do it, and at the worst of it we were sitting there thinking 'Why are we here?"

Therapist site 3: "We've used goal-based outcomes so they've all had their own goal at the beginning and pretty much all of them have reached their goal whatever that might be…and we've had at least three or four who've come back and been willing to do graduate family [presentation] and really sold the group…and said, I didn't want to come but now I can see why and it's been great."

Theme 2: The set-up and structure of MFT in a CEDS-CYP

The MFT manual provides a general programme outline. However, there is space for facilitators to adapt the intervention to best suit the needs of the specific group. Therapists and carers commented on aspects of the programme they felt were especially effective, and therapists spoke about the general approach of MFT. Therapists discussed options for how MFT could be most effectively set-up in CEDS-CYP teams within CAMHS, given that the service as a whole is not dedicated to ED work.

Programme Content.

Flexibility of approach. The flexibility of the MFT programme allowed clinicians to selectively choose activities most appropriate for the group. They thought this enabled them to better engage young people by judging when they were ready for a particular aspect of the intervention.

Therapist site 3: "It's nice to have the outline of the different activities that there are to use, but then be able to kind of mould it around what's needed."

Therapist site 2: "If you've got a room full of young people who are refusing or really struggling [it's] about having that flexibility, because they are not at a space for the activity that you thought they might be and so then how do you quickly regroup it to be something they can use rather than everyone sitting there for an hour feeling really uncomfortable?"

Mix of emotive and less-emotive material. Therapists and carers emphasised the usefulness of having a mix of emotive and less-emotive activities within the programme.

Carer C: "[The group] was a good mix I think…when we had had some heavy sessions then some games were quite good to…lighten the atmosphere."

Specific activities. Carers identified several helpful activities within MFT, but a few were noted as being particularly powerful. Role-playing the voice of anorexia reportedly helped carers to understand their child's experiences. One young person found sculpt techniques (Heinl, 1987) -- in which families illustrate emotional relationships within the family -- particularly helpful.

Carer C: "We did some role play stuff at the beginning which I just hated the idea of…but when sort of forced into the spot it left a lasting impression actually -- it was very powerful."

Young person comment: "Doing family sculpt stood out for me - felt helpful. Made me think more about what's happened in my family."

MFT Structure.

Follow-up sessions. Therapists across all sites questioned how suitable an extensive follow-up period was for their client population.

Therapist site 3: "Our experience is that after about two, maybe three [follow-up sessions], people start dropping out, it's just too much, it just doesn't quite fit, so I wonder [if] we may adapt that so that we do three follow-up days rather than trying to eke it out to six".

Sibling days. The MFT manual recommends a sibling day, and other services found this helpful. The B&SG pilot group did not have enough sibling uptake to warrant this but should consider this in future.

Therapist site 3: "Probably different families found it helpful for different reasons. Sometimes there were older siblings that could just be a support for the younger person, sort of like 'I'll help you get through it, bit of an ally' and other times it was helpful for them to understand a bit more about what was going on for their sibling."

Theme 3: The challenges of implementing MFT in a CAMHS-based CEDS-CYP

Young people's engagement. The most commonly identified challenge of the B&SG MFT group was young people's reluctance to engage. Therapists from other services acknowledged this could be problematic, but thought engagement generally increased over the course of the group. Providing space for young people to bond without facilitators was thought to promote engagement. This challenge may be endemic to MFT, regardless of the setting.

Therapist site 3: "I think it takes a while for young people to engage because actually they don't want to get better -- getting better means eating and they don't want to eat, they don't want to gain weight -- but, I think the feedback is that as time goes on, yeah they can see what's been useful".

Therapist site 2: "What we tended to find easier is to give them an activity and then come in and out of the room…and actually found that they did interact with each other or were all kind of doing stuff in silence … that kind of 'being around but not' seemed to work quite well for them."

Not offering a rolling-programme of MFT. Therapists highlighted the key difference between offering MFT in a CAMHS-based CEDS-CYP and offering it within a highly specialised ED service (e.g. SLaM) was that CAMHS-based CEDS-CYPs were not able to offer a rolling programme of MFT. There were several difficulties associated with this.

Offering MFT appropriate to individual needs. Therapists reported that because MFT was offered infrequently, attendance was sometimes based on practical considerations such as availability, parental willingness, and physical wellness. There was less flexibility to consider family circumstances or individuals stage of recovery and to offer MFT when it felt most helpful. There was a consensus that all young people with ED could benefit from MFT, but no agreement as to when it might be most effective in regards to stage of recovery. Therapists agreed it is more important to consider an individuals' current needs in relation to the focus of their treatment.

Therapist site 2: "I was thinking [about] the family…who had got quite stuck. I don't actually know if [MFT] would have worked for them in the beginning. I think that year of processing got them to the point where they were ready and could kind of say 'yes we need it'."

Therapist site 2: "It's a bit more complicated than 'are you at this stage or this stage'. It's about thinking about where are you at and what do you need..in some ways it has to be people who the main focus of the work is about managing eating and understanding eating disorders".

Group composition. Furthermore, not having a rolling-programme inhibits selectivity in the mix of individuals who might comprise the group. Clinicians across all focus-groups consistently raised this as a challenge. MFT training proposes individuals at various stages of ED can be within one group but both therapists and carers had mixed views on this.

Therapist site 2: "I remember when we were doing the training being really surprised when they talked about it being okay if someone's brand new and someone's quite recovered...I remember thinking…that would be incredibly hard to manage. If you had someone really ill and really struggling and someone much further down the line I would be very concerned about the risks both ways."

Therapist site 3: "There are some people that are slightly further down the line to recovery and I think that mix is really helpful as well -- like for people who are really struggling to see actually you can come out the other side, you can get better. And also for those people to be able to recognise that they have come a long way and actually it's not as bad as it used to be."

Carer D: "For me to see (another young person) sat at a table eating was encouraging for me to think 'my X could do that soon'…so it gave me hope that my X could reach that stage."

Facilitators' experience and confidence. Clinicians found facilitating MFT rewarding and thought it enhanced their practice. However, they identified practical, personal and professional challenges of implementing MFT, some of which may be reduced if they facilitated MFT regularly.

A key benefit of MFT is that families can share ideas and learn from one another. However, one therapist within B&SG found it difficult to challenge ideas posed by families that might unwittingly maintain ED behaviours. This was not voiced

by therapists who have delivered MFT regularly, and the B&SG therapists acknowledged that over the course of the group they felt more confident in challenging 'unhelpful' ideas.

Therapist site 1: "I had some dilemmas about some of the solutions that were offered and whether we should say more…when people came up with sort of pro-anorexic solutions".

Clinicians discussed how it can feel to have ones' clinical skills and abilities exposed in front of multiple individuals. When facilitating MFT they often had to make quick decisions without discussing with co-therapists, and reported that it felt like taking 'risks' in front of a big audience. Clinicians highlighted the importance of supervision to manage these issues.

Therapist site 1: "It's potentially exposing for us because we had to make some quite big interventions and decisions very quickly...if our interventions hadn't gone the right way then that would have been very difficult".

Therapist site 1: "For me that was invaluable to have a separate space with someone who could sort of take a meta-position, who was more experienced than us at running these groups and someone we all…knew and trusted".

Lastly, whilst the flexibility of MFT is a positive aspect of this intervention, therapists thought that in order to most effectively adapt the programme clinicians required knowledge and experience of MFT.

Therapist site 3: "another reason why I think it's really important to have a rolling programme to do regularly is so that all the people facilitating have a really good knowledge of the programme and what you are doing, what activities you could draw on. Because you do sometimes have to think 'okay well we need to change plan -- someone's become really distressed or that's going to hit too much about something that's happened in their life -- what can we do differently'?"

Practical Challenges.

Family availability. Therapists noted that attending MFT required families to arrange time-off work, childcare, and travel. A rolling programme might reduce these difficulties as families would have increased opportunities to attend. Carers emphasised that practical challenges were worth overcoming in order to engage with an intervention that could potentially help their child.

Carer B: "You just have to accept that you have to take some time off or make some arrangement or whatever…and the level of importance in doing it is such that you should".

Service resources. Therapists noted that professional commitments and staff resources impede the ability to offer a rolling programme. One therapist reflected that this challenge is more likely to affect clinicians working in a team operating within a CAMHS service, than in a specialist setting dedicated solely to ED treatment. Clinicians valued having dedicated time to commit to families.

*Therapist site 2: **"**Four staff is a big commitment for what we offer…it takes a whacking great chunk of the family service out [of general practice], and that's over [and above] the families who aren't part of the group who need seeing and managing."*

Therapist site 1: "It was like taking a week out of work essentially – we are talking about the practical implications of taking four days out of work…but it meant that we could just focus on [MFT] and [MFT] only..."

Discussion

This project aimed to inform and improve the newly-developing Bristol CEDS-CYP by evaluating whether MFT is a feasible and useful intervention to offer within their treatment pathway for young people with AN. This project aimed to evaluate the implementation of MFT in the Bristol CEDS-CYP by exploring the experiences of the families who attended the first pilot MFT group in the region, as well as therapists who have facilitated this intervention.

This project gathered the views of caregivers who attended the pilot MFT group and of therapists both within the Bristol locality and within the wider South-west region. Their perspectives provided useful insight into the benefits and challenges of implementing MFT in a CEDS-CYP setting. Findings suggested that both caregivers and therapists think MFT is a useful and valuable intervention to offer in this setting. Caregivers were positive about MFT, expressing how helpful it was to share experiences with others.

This project was unable to comprehensively access the views of young people who attended the pilot MFT group. Young people provided quantitative data in relation to the MFT group and completed measures about their satisfaction with the group, however they chose not to engage in a focus group about their experiences. Therefore, their perspectives were noticeably missing from this project. This is reflective of much

of the research in this area. It is recognised that several barriers obstruct individuals with EDs from engaging in research, including lack of motivation to change, continued desire to lose weight or denial that they are unwell (Agras et al., 2004). Consequently, this project acknowledged that young people's experiences of MFT are not well understood. Both caregivers and therapists expressed some concern that young people did not engage with the intervention, perhaps because it challenges their ED. Later in recovery, when ED psychopathology has reduced, young people may be able to better reflect on the usefulness of MFT, and this suggests that long-term follow-up research may be useful. There is some support for this idea, as following the conclusion of this project, one young person from the pilot group acted as a 'graduate' for MFT in another region and spoke positively of her experiences.

Despite recognising the value of implementing MFT in CEDS-CYPs, clinicians identified challenges associated with offering MFT within teams that sit alongside generic CAMHS. Clinicians from the three CEDS-CYP teams involved in this study all stated that they were not able to offer a rolling programme of MFT in this setting, primarily due to service resources and feasibility. They believed that not having a rolling-programme prevented MFT from being offered in the most appropriate, flexible and effective manner.

Clinicians believed infrequent MFT programming impacts opportunities for individuals to attend when it is most appropriate for their recovery and creates difficulties in comprising the most effective group compositions. There was particular concern about whether individuals at different stages in their illness should be included in a group. It would be helpful to understand young peoples' views on how the composition of group attendees might influence their experience of MFT and their recovery.

Clinicians also raised concerns that delivering MFT on an infrequent basis affected their confidence in facilitating this intervention. More experienced clinicians were thought to be more competent in adapting the intervention to suit group needs, again improving the effectiveness of this intervention. If teams do not have the capacity to provide a rolling programme, clinicians may not feel as skilled and competent in offering this intervention.

Implications for practice, policy and research

The current evidence-base for offering MFT is primarily based in highly specialised settings for young people with EDs. Research in specialised settings shows that MFT is valued by service-users and effective for reducing ED psychopathology

(Depestele, Claes & Lemmens, 2015; Engman-Bredvik, Carballeira Suarez, Levi, & Nilsson, 2016; Hollesen, Clausen, & Rokkedal, 2013; Scholz & Asen, 2001). The findings from this pilot study of MFT in a newly-developed CEDS-CYP are in line with findings from studies in specialised services and suggest that MFT is valued and useful in this setting. However, the extent to which conclusions can be drawn is limited by small sample size and lack of involvement from young people. It is therefore essential that research continues to be undertaken in CEDS-CYP settings to establish the role of MFT within the treatment pathways that they offer. Policy guidelines should be adapted in line with ongoing research to reflect the best practice that can be feasibly and effectively implemented in nationally-driven CEDS-CYP services.

Limitations

The biggest limitation of this project is that young peoples' perspectives are missing. This would be an essential aspect to consider if continuing to evaluate MFT in the Bristol CEDS-CYP service. Engaging young people in this type of research may be more effective at a follow-up timepoint, when they may be more willing and able to reflect on their experiences. An additional limitation of this pilot study is that MFT is an adjunct intervention and was offered alongside concurrent treatment. Therefore definitive conclusions as to its efficacy, over and above other modalities, cannot be drawn. Research is required in order to compare SFT with MFT, to SFT alone. This project was a pilot study with a small sample size, which limits the extent to which conclusions can be drawn about the effectiveness of MFT. However, the findings from this study suggest that the ongoing development of CEDS-CYP could be usefully informed by larger, controlled studies of MFT in this setting.

Conclusion and Recommendations

This project concludes that MFT is a feasible intervention to offer in CEDS-CYPs, although further developments have been recommended to make it more acceptable to staff and participants. The following recommendations should be considered to effectively incorporate MFT into the Bristol CEDS-CYP (Table 2.1). These recommendations were presented to the Bristol CEDS-CYP and were well-received. The service is continuing to develop the structure of the CEDS-CYP and to define how it sits separate to, but alongside, the CAMHS localities. As this development continues the CEDS-CYP will refer to the recommendations of this project to inform and improve the treatment pathway they offer.

Table 2.1.

Table of recommendations for implementing MFT in CAMHS-based CEDS-CYPs.

Further development of B&SG ED services	Weston and Exeter have established CEDS-CYP teams within their CAMHS services. They provide a good example of how evidence-based intervention can be offered within this set-up. The Bristol localities should increasingly work towards establishing their newly developed CEDS-CYP, in line with the government initiative to improve services for young people with ED. This team should have protected time for offering interventions such as MFT to young people with ED.
Provision of MFT intervention	MFT was valued by caregivers who attended. It should be offered routinely within the Bristol ED treatment pathway.
	There was a consensus that not being able to offer a rolling programme of MFT is a crucial limitation of CAMHS-based CEDS-CYP. Bristol localities should work towards implementing a rolling programme of MFT.
	If continuing to offer MFT, the Bristol services would need to put further thought into how to best select group attendees. Carers and therapists considered the advantages and disadvantages of mixing individuals at different stages of recovery. It might be helpful for the team to ascertain views of the young people who attended MFT to inform these decisions. It would also be important to consider the mix of community and tier 4 patients in MFT and whether the needs are such that these subgroups of patients are best served in separate MFT groups.
MFT Approach	It is recommended that the manualised MFT programme is most effective when delivered in a flexible and adaptive way. It is recommended that B&SG clinicians have regular opportunities to offer MFT, so that they become more experienced and skilled in delivering this intervention effectively.
	Experienced MFT therapists highlighted that providing space within the group for individuals to process emotive material and to bond without the presence of therapists promoted group cohesion and young people's engagement. Bristol localities should strive to include non-therapist facilitated space in future MFT groups.
MFT structure	Clinicians agreed that follow-up sessions would be better offered on an as-needed basis, taking into consideration participants' circumstances.
	The SLaM MFT model invites all members of a family system to be included in MFT, and therapists in other services emphasised the value of including siblings. Research has shown that parents identify a lack of service provision for siblings of young people with ED, and have expressed a desire for services to address this need (Roots et al., 2009). Bristol localities should include a sibling day within any future MFT programmes.
	B&SG clinicians and carers questioned whether young people benefited from attending the group. The Weston service used

Outcome measurement/group evaluation	idiosyncratic goal-based outcomes as an objective indicator of young people's progress. Bristol localities could adopt this idea in future MFT groups.
	The Bristol localities should continue to incorporate the SRS into the MFT group and facilitate discussion amongst the group about how to adapt the intervention to best suit group needs.
Supervision for MFT therapists	Facilitators delivering MFT should receive appropriate supervision to reflect upon and work through challenges that arise when providing this intervention.

References

Agras, W. S., Brandt, H. A., Bulik, C. M., Dolan- Sewell, R., Fairburn, C. G., Halmi, K. A., ... & Le Grange, D. (2004). Report of the National Institutes of Health workshop on overcoming barriers to treatment research in anorexia nervosa. International Journal of Eating Disorders, 35(4), 509-521.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

Carter, J. C., Stewart, D. A., & Fairburn, C. G. (2001). Eating disorder examination questionnaire: norms for young adolescent girls. *Behaviour Research and Therapy*, *39*(5), 625–632.

Depestele, L., Claes, L., & Lemmens, G. (2015). Promotion of an autonomy-supportive parental style in a multi- family group for eating- disordered adolescents. *Journal of Family Therapy, 37*(1), 24-40.

Duncan, B. L., Miller, S. D., Sparks, J. A., Claud, D. A., Reynolds, L. R., Brown, J., & Johnson, L. D. (2003). The Session Rating Scale: Preliminary Psychometric Properties of a "Working" Alliance Measure. *Journal of Brief Therapy*, *3*(31), 3–12.

Eisler, I., Lock, J., & Le Grange, D. (2010). *Family-Based Treatments for Adolescents with Anorexia Nervosa: Single-Family and Multifamily Approaches*. New York: Guilford Press.

Eisler, I., Simic, M., Blessitt, E., & Dodge, L. (2016). *Maudsley Service Manual for Child and Adolescent Eating Disorders*. Retrieved from https://www.national.slam.nhs.uk/wp-content/uploads/2011/11/Maudsley-Service-Manual-for-Child-and-Adolescent-Eating-Disorders-July-2016.pdf

Engman-Bredvik, S., Carballeira Suarez, N., Levi, R., & Nilsson, K. (2016). Multi-family therapy in anorexia nervosa—A qualitative study of parental experiences. *Eating disorders, 24*(2), 186-197.

Fairburn, C., & Beglin, S. (1994). Assessment of eating disorders: interview or self-report questionnaire? *International Journal of Eating Disorders*, *16*(4), 363–370.

Heinl, P. (1987). The interactional sculpt: examples from a training seminar. *Journal of Family Therapy*, *9*, 189–198.

Hollesen, A., Clausen, L., & Rokkedal, K. (2013). Multiple family therapy for adolescents with anorexia nervosa: a pilot study of eating disorder symptoms and interpersonal functioning. *Journal of Family Therapy, 35*(S1), 53-67.

Lock, J., & Le Grange, D. (2015). *Treatment manual for anorexia nervosa: A family-based approach.* Guilford Publications.

Low, D. C., Miller, S. D., & Squire, B. (2012). The outcome rating scale (ORS) & session rating scale (SRS): Feedback Informed Treatment in Child and Adolescent Mental Health Services (CAMHS). Retrieved from: http://www.aft.org.uk/SpringboardWebApp/userfiles/aft/file/Events/2012/David%20Low%20paper%20for%20CYP-IAPT.pdf

Luce, K. H., & Crowther, J. H. (1999). The reliability of the Eating Disorder Examination — self-report questionnaire version (EDE-Q). *International Journal of Eating Disorders*, *25*, 349–351.

Murphy, R., Straebler, S., Cooper, Z., & Fairburn, C. G. (2010). Cognitive behavioral therapy for eating disorders. *Psychiatric Clinics of North America*, *33*(3), 611-627.

Nagl, M., Jacobi, C., Paul, M., Beesdo-Baum, K., Höfler, M., Lieb, R., & Wittchen, H.-U. (2016). Prevalence, incidence, and natural course of anorexia and bulimia nervosa among adolescents and young adults. *European Child & Adolescent Psychiatry*, *25*(8), 903–918.

National Institute for Health and Care Excellence (NICE). (2017). Eating disorders: recognition and treatment. NICE guideline (NG69). Retrieved from: https://www.nice.org.uk/guidance/ng69

NHS England. (2015). Access and waiting times standard for children and young people with an eating disorder. *Commissioning Guide*. Retrieved from: https://www.england.nhs.uk/wp-content/uploads/2015/07/cyp-eating-disorders-access-waiting-time-standard-comm-guid.pdf

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods, 16*(1).

Passi, V. A., Bryson, S. W., & Lock, J. (2003). Assessment of eating disorders in adolescents with anorexia nervosa: Self-report questionnaire versus interview. *International Journal of Eating Disorders*, *33*(1), 45–54.

Rhodes, P., Baillie, A., Brown, J., & Madden, S. (2005). Parental efficacy in the family- based treatment of anorexia: preliminary development of the Parents Versus Anorexia Scale (PVA). *European Eating Disorders Review, 13*(6), 399-405.

Robinson, A. L., Strahan, E., Girz, L., Wilson, A., & Boachie, A. (2013). 'I Know I Can Help You': Parental Self- efficacy Predicts Adolescent Outcomes in Family-based Therapy for Eating Disorders. *European Eating Disorders Review*, *21*(2), 108-114.

Roots, P., Rowlands, L., & Gowers, S. G. (2009). User satisfaction with services in a randomised controlled trial of adolescent anorexia nervosa. *European Eating Disorders Review*, *17*(5), 331–337.

Scholz, M., & Asen, E. (2001). Multiple family therapy with eating disordered adolescents: Concepts and preliminary results. *European Eating Disorders Review, 9*(1), 33-42.

Scholz, M., Rix, M., Scholz, K., Gantchev, K., & Thömke, V. (2005). Multiple family therapy for anorexia nervosa: Concepts, experiences and results. *Journal of Family Therapy*, *27*(2), 132–141.

Service Improvement Project - An additional paper

An additional article was written to present the data collected for this service improvement project. This second paper was written to address a distinct research question and was also submitted to Journal of systemic therapies. This paper is presented in Appendix 2.2.

Why do some young adults develop Post-Traumatic Stress Disorder (PTSD) following Intimate Partner Violence?

Main Research Project

Hannah Wiseman
Doctorate in Clinical Psychology, 10 West Level 3, University of Bath, Claverton Down, Bath, BA2 7AY, United Kingdom
h.wiseman@bath.ac.uk

Word count: 6171

May, 2018

Supervisors: Catherine Hamilton Giachritsis and Sarah Halligan

Proposed Journal: Journal of adolescent health

I am proposing to submit this paper to the Journal of Adolescent Health because it focuses on publishing research which addresses issues related to the health and wellbeing of adolescents and young adults (primarily interested in manuscripts concerning subjects from 10 to 26 years of age). This journal aims to promote knowledge of health needs that are unique to this age group, and to improve practice and policy for this population.

Introduction

Intimate partner violence (IPV) is a prevalent issue worldwide. IPV refers to physical, sexual, emotional, or financial abuse between couples in an intimate relationship (Home Office, 2003), and the co-occurrence of different abuse types is common (Black et al., 2011). IPV is most commonly reported amongst young adults aged 16 to 24 years (Brown & Bulanda, 2008; Office for National Statistics, 2016).

Post-traumatic stress disorder (PTSD) is a trauma-specific diagnosis recognised by the Diagnostic and Statistical Manual of mental disorders (DSM-V) and is the most commonly reported mental health difficulty following IPV (Nathanson, Shorey, Tirone, & Rhatigan, 2012). Diagnostic criteria for PTSD includes: symptoms of hyperarousal; intrusive trauma-related memories and thoughts; avoidance of the trauma and trauma reminders; and negative thoughts and feelings about oneself, the world or others (American Psychiatric Association, 2013). However, there is ongoing debate as to whether a PTSD diagnosis sufficiently encapsulates the difficulties demonstrated by individuals who experience ongoing and chronic trauma such as IPV. It is widely debated whether a separate diagnosis of 'complex PTSD' is warranted, that includes additional symptoms unique to individuals exposed to repeated trauma (Resick et al., 2012). These symptoms include negative self-concept (including feelings of shame and guilt), affect dysregulation, and interpersonal difficulties (Cloitre, Garvert, Brewin, Bryant, & Maercker, 2013).

There is not yet enough evidence to support complex PTSD as a separate diagnostic category to PTSD (Resick et al., 2012) and no treatment guidelines are developed specifically for complex trauma presentations. This means that current approaches to working with IPV-related trauma symptoms draw on empirically-based PTSD models and PTSD treatment guidelines. The majority of research supporting PTSD models and interventions has been conducted with single-incident trauma populations (e.g., road traffic accidents). Consequently, it is important to understand if and how this framework of PTSD can be applied in an IPV population (van der Kolk, 2001).

Cognitive models of PTSD

Cognitive models are the most widely recognised framework for understanding the development and maintenance of PTSD (e.g., Brewin, Dalgleish, & Joseph, 1996; Ehlers & Clark, 2000; see adapted model, Figure 3.1). Different cognitive models of PTSD share common ideas, but the Ehlers and Clark model (2000) provides the most detailed conceptualisation of this disorder (Brewin & Holmes, 2003). Ehlers and Clark

(2000) propose that PTSD arises when individuals remember and appraise trauma such that they develop a sense of ongoing and current threat. Cognitive models of PTSD (e.g., Brewin et al., 1996; Ehlers & Clark, 2000) propose that problems arise when trauma memories are not encoded effectively within memory systems in a verbally-cohesive form but are instead stored as sensory-representations. These memories are typically fragmented, disorganised and have sensory and emotional characteristics. Such memories are easily triggered by environmental stimuli, leading to flashbacks and intrusions that are characteristic of PTSD.

Ehlers and Clark (2000) further describe how appraisals of the trauma and trauma sequalae can lead to an ongoing sense of threat. Individuals may develop maladaptive appraisals about themselves (e.g., I attract disaster), their trauma reactions (e.g., I am going mad), their role during the trauma (e.g., The trauma happened because of how I acted), or the world (e.g., I cannot trust others) which maintain a sense of current threat. Additionally, maladaptive appraisals may contribute to emotional responses (e.g., appraisals of self-blame may lead to feelings of shame). Ehlers and Clark (2000) suggest that individuals may engage in coping strategies to manage distressing thoughts and memories that are contributing to their sense of threat. However, these strategies may prevent appraisals or memories of the trauma from being changed, and subsequently maintain PTSD.

Cognitive models of PTSD in an IPV population

Cognitive models of PTSD have received empirical support across many single-incident trauma populations (Brewin & Holmes, 2003) but limited research has investigated whether this framework is applicable following IPV, or complex trauma generally (Beck et al., 2015). To enhance theoretical models of PTSD in the context of IPV, greater understanding is required of IPV-related cognitions, emotions and responses. It is especially important to understand if cognitive models of PTSD are applicable following IPV, given that they are the foundation for currently recommended, first-line treatment for PTSD, i.e., trauma-focused cognitive behavioural therapy (TF-CBT; National Institute of Clinical Excellence [NICE], 2005).

Cognitive models of PTSD (e.g., Ehlers & Clark, 2000) typically focus on fear (i.e., sense of current threat) as the primary emotion. It has been suggested that emotions such as shame, anger, guilt and sadness need to be acknowledged when working with complex trauma (Beck et al., 2011; Lee, 2006). In particular, shame is prevalent amongst individuals exposed to IPV, and research has shown that this emotion partly explains the relation between victimisation and ongoing psychopathology

(Shorey, Sherman, Kivisto, Elkins, Rhatigan, & Moore, 2011). Whilst research on PTSD following IPV is limited, existing studies show some support for the role of shame in contributing to PTSD outcomes and have considered how this emotion might interact with other psychological processes described by cognitive models of PTSD.

For example, research amongst IPV populations has shown that shame is directly associated with PTSD, and also associated with negative self-appraisals and self-blame (Beck et al., 2011; 2015). Other studies have found that shame and self-blame might impact adjustment differently depending on the type of IPV experienced (Reich et al., 2015; Street & Arias, 2001). In regards to coping, Lee, Scragg and Turner (2001) describe that people are motivated to avoid memories or thoughts associated with feelings of shame. In line with this, Matos, Pinto-Gouveia and Costa (2013), showed that shame-based memories are associated with thought suppression strategies, although this research was conducted in a non-traumatised population. Research in other trauma populations has consistently shown that thought suppression is associated with PTSD (Brewin & Holmes, 2003).

Cognitive models of PTSD (Ehlers & Clark, 2000) propose that individual and trauma characteristics influence how individuals remember, appraise and respond to traumatic events. A number of studies have explored demographic and IPV-characteristics as risk factors for PTSD, and findings are mixed. Coker Weston, Creson, Justice, & Blakeney (2005) found that lower education, lower socio-economic status (SES), being unmarried, experiencing ongoing IPV, and experiencing increased severity of IPV were risk factors for PTSD. In contrast, Pico-Alfonso (2005) found that education and employment levels, recency of IPV, cohabitating with an abusive partner, and co-occurrence of different IPV types were not associated with PTSD.

There is a general consensus that various emotions, appraisals, coping responses and IPV-related characteristics are likely to influence PTSD outcomes. However, there has been limited examination of the interplay of these factors in the development of PTSD following IPV. Moreover, existing research typically focuses on age-groups older than the young-adult age-group where IPV is most prevalent, and participants are primarily recruited from help-seeking settings (e.g., domestic violence shelters), thus may not be representative of IPV populations more generally (Beck et al., 2015; Waldrop & Resick, 2004). We sought to address this gap, by conducting an examination of cognitive models of PTSD (Brewin et al., 1996; Ehlers & Clark 2000; adapted model, Figure 3.1), and conceptualisations of 'complex trauma' that emphasise the role of shame (Lee, 2006), as they apply to IPV related PTSD.

Aims

The overall aim was to investigate the how IPV-characteristics and key psychological processes (appraisals, memory, shame and thought suppression) are associated with PTSD outcomes in a community sample of young adults exposed to IPV.

Research questions

The research questions were informed by cognitive models of PTSD (Brewin et al., 1996; Ehlers & Clark 2000; adapted model, Figure 3.1) but also drew on conceptualisations of 'complex trauma' that emphasise the role of shame (Lee et al., 2001; Lee, 2006). Specifically, the following questions were explored using path analysis (Figure 3.2).

1. Do poorly verbalised, sensory-based trauma memories contribute to PTSD in the context of IPV?
2. Do appraisals of self-blame, negative-self and negative-world contribute to PTSD in the context of IPV?
3. In the context of IPV, does shame explain the relationship between a) appraisals and PTSD, and b) memory and PTSD?
4. In the context of IPV, does thought suppression explain the relationship between a) appraisals and PTSD; b) memory and PTSD; and c) shame and PTSD?
5. Do demographic and IPV-characteristics influence psychological processes (appraisals, memory, shame, thought suppression) and PTSD?

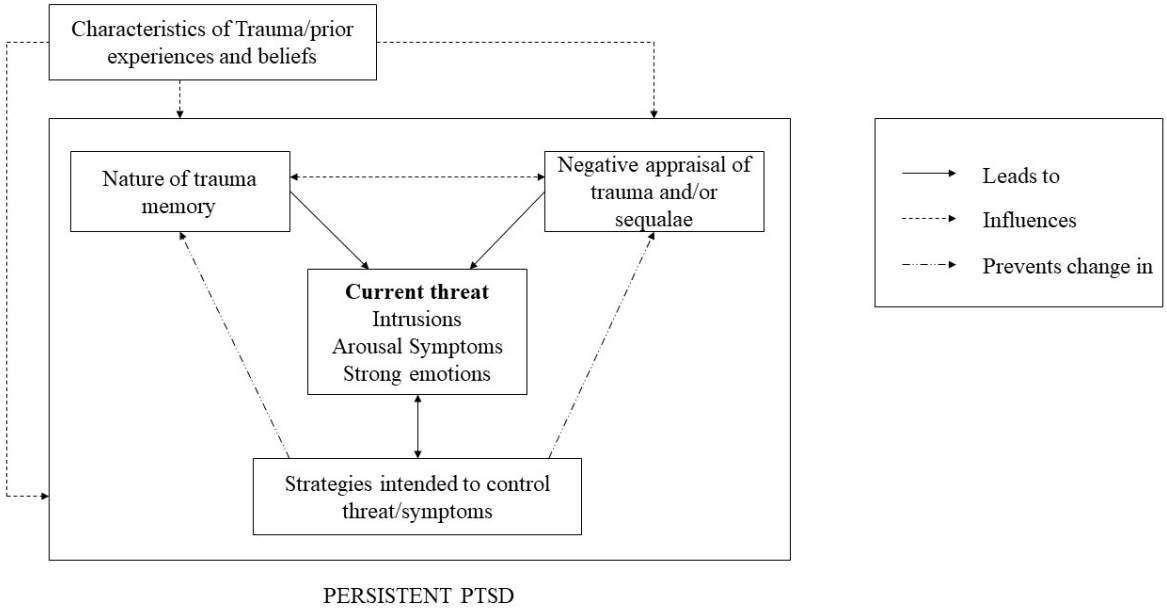


Figure 3.1. A cognitive model of posttraumatic stress disorder – adapted from Ehlers and Clark (2000).

Method

Participants

Eligibility. Eligible participants were 18 to 25 years old and had experience of current or past IPV. Five hundred eighteen (518) age-eligible participants consented to participate. Of these participants, 88 were excluded because they did not complete at least 85% of the items on the PTSD measure. A further 31 participants who identified as male or non-binary were excluded because these subgroups were deemed too small to make meaningful inferences about these populations. Therefore, the analysis sample included 399 females.

Participant characteristics. The mean age of participants was 21.68 years (SD=2.22). Eighty-seven percent of participants resided in the United Kingdom and Northern Ireland, nine percent were from North America and Canada, and the remaining participants were from Europe, Asia or Australasia. Most participants (92%) self-identified as ‘white’, whilst 8% identified as either ‘black’, ‘Asian’ or ‘other’. Sixteen percent of individuals had attended ‘high school’ only, 49% had some college education, and 35% had attended university. Seventeen percent of participants reported unemployment, 54% were employed, and 29% identified as students. Sixty-three percent of participants met the cut-off for a diagnosis of PTSD, based on a screening measure (PDS-5, described in measures).

IPV-characteristics. Participants completed a survey which included questions about their overall history of IPV and questions regarding the most recent relationship in which they had experienced IPV, referred to as the focal relationship (see Table 3.1). Table 3.1 provides an overview of IPV-characteristics reported by this sample.

Table 3.1

Table of sample IPV-characteristics (N=399)

Sample characteristics	n (%)
History of IPV	
IPV in first ever significant relationship	268 (67%)
IPV in more than one relationship	136 (34%)
Only been in IPV relationships	60 (15%)
IPV in most recent relationship	173 (43%)
Focal relationship characteristics	
Relationship Status	
Currently in relationship	34 (8%)
Relationship ended < 1 year ago	134 (34%)
Relationship ended > 1 year ago	231 (58%)
Heterosexual relationship	378 (95%)
Engaged or married	41 (10%)
Living together	157 (39%)
Focal relationship was first ever relationship	218 (55%)
Ongoing contact with ex-partner	72 (18%)
Respondent had children	65 (16%)
Involved in court proceedings	52 (13%)
Relationship Duration	
< 1 year	154 (39%)
1-2 years	119 (30%)
> 2 years	126 (31%)
Experience of abuse in relationship	
Physical abuse	268 (67%)
Sexual abuse	237 (59%)
Emotional abuse	393 (99%)
Financial abuse	183 (46%)
IPV disclosed	319 (80%)
Sample characteristics	Mean (SD)
Mean age of first IPV	17.4 (2.27)
Mean number of abuse types experienced	2.7 (0.96)

Procedure

The study was advertised by flyers displayed in public places (e.g., youth hostels and supermarkets) and at local universities, and online via university websites, local and national charities, and social media (e.g. Instagram, Facebook). Most participants (70%) reported that they heard about the study via social media.

Ethics

The University of Bath provided ethical approval for this study (Appendix 3.3). A local IPV charity advised on the appropriateness of survey questions. IP addresses were not recorded and participants did not provide any identifiable information except for a user-generated anonymous username. Participants could withdraw from the study by sending their username to the study coordinator via an anonymous website link. The study website provided guidance on removing traces of the website from browser history and provided a list of IPV charities and self-help resources. A small charity donation was made on behalf of each participant[1]. Full details of the study can be found at www.therepairproject.wordpress.com.

Survey measures

The survey was administered via Qualtrics and was accessible via the study website. The full survey is presented in appendix 3.2.

Individual factors. Participants answered questions regarding their age, ethnicity, education and employment status.

IPV characteristics. Participants answered questions regarding their history of IPV (e.g., whether their most recent relationship was abusive) as well as questions regarding the focal relationship identified by the participant (the most recent relationship in which they had experienced IPV). For example, the survey asked questions about the status (e.g., dating, engaged or married) and duration of the focal relationship and the type of IPV experienced in this relationship. Table 3.1 presents the full list of IPV characteristics considered.

The posttraumatic cognitions inventory (PTCI; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999). The 33-item PTCI comprises three subscales which assess: negative cognitions about self, negative cognitions about the world, and self-blame. PTCI items are scored from one (totally disagree) to seven (totally agree) and mean scores are calculated for each subscale. Higher scores indicate increasingly maladaptive cognitions. PTCI subscales have demonstrated good internal consistency within an IPV sample (α=.82-.94, Beck et al., 2015).

The Trauma Related Shame Inventory (TRSI; Øktedalen, Hagtvet, Hoffart, Langkaas, & Smucker, 2014). The TRSI consists of 24 items, and scores range from

[1] Participants could choose for the money donated on their behalf to go to one of four pre-selected IPV charities. In total four hundred pounds were donated to charity.

0-72. The TRSI demonstrates good reliability (generalisability coefficient=.874, dependability coefficient=.868) and has been shown to be distinct from measures which assess guilt (generalisability coefficient=.812 for difference scores).

Trauma Memory Quality Questionnaire (TMQQ; Meiser-Stedman, Smith, Yule, & Dalgleish, 2007). The 11-item TMQQ assesses memory *quality* (e.g., extent to which memories have sensory properties and are poorly verbalised) and predicts unique variance in PTSD symptoms over and above measures that assess *frequency* of trauma memories (Meiser-Stedman et al., 2007). The TMQQ was developed for children and adolescents but has been used with participants up to 18 years old and is therefore likely to be suitable for young adults. TMQQ items are scored from one (disagree a lot) to four (agree a lot). Higher scores reflect poorly verbalised memories with more sensory qualities. The TMQQ demonstrates criterion validity and construct validity and has good internal consistency (α=.76; Meiser-Stedman et al., 2007).

Response to Intrusions Questionnaire (RIQ; Clohessy & Ehlers, 1999; Ehlers & Steil, 1995). The RIQ has three coping subscales: thought suppression, numbing and rumination. The RIQ has not previously been used in a IPV sample, but has been validated in other trauma populations (Clohessy & Ehlers, 1999). This study only focused on thought suppression as a coping strategy. This subscale consists of six items scored from zero (never) to three (always). This subscale has previously demonstrated reasonable internal consistency (α=.72; Clohessy & Ehlers, 1999).

The Posttraumatic stress Diagnostic Scale for Diagnostic Statistical Manual-5 (PDS-5, Foa et al., 2016). The PDS-5 is a self-report measure based on DSM-V diagnostic criteria for PTSD (American Psychiatic Association, 2013). The PDS-5 includes 20 items which assess symptom severity, and scores range from 0-80. A cut-off score of 28 indicates a probable diagnosis of PTSD (≥28). The PDS-5 has been validated for use in a range of trauma populations and has demonstrated good internal consistency (α=.95), test-retest reliability (α=.90), and convergent and discriminant validity (Foa et al., 2016).

Analytic Approach

A power analysis was conducted prior to the study and showed that the study had 80% power to detect medium size mediational effects using bootstrap techniques (assuming α=.05; Fritz & Mackinnon, 2007). Path analysis was used to examine theorised relations between individual factors, IPV-characteristics, psychological processes and PTSD (Figure 3.2). Path analysis allows for the simultaneous estimation of multiple regression equations and is considered a special case of structural equation

modelling (SEM) in which all variables are observed (Hox & Bechger, 1998). Path models were estimated using Mplus 7.3.

In an initial step, separate regressions were fitted in which each variable in the path model was regressed on the full set of demographic and IPV characteristics (see Table 3.1). Characteristics that conservatively predicted each variable ($p < .10$) were included in the path model. This meant that each variable in the final path model, including PTSD, was regressed on both key psychological processes and its own set of covariates.

The final path model can also be conceptualised as a multiple mediation model, whereby shame and thought suppression mediate the relation between memory/appraisals and PTSD, and thought suppression mediates the relation between shame and PTSD. Residual terms for memory and appraisals were estimated to co-vary, because the appraisal variables are derived from the same instrument and all self-report measures used a similar response format (Likert scales). Moreover, Ehlers and Clark (2000) propose that prior beliefs and experiences influence post-trauma appraisals and memories, thus these variables could share some omitted causes not accounted for by model covariates.

The WLSMV (weighted least squares means and variance adjusted) estimator was used to model the data. WLSMV is a robust estimator that provides the best option for modelling categorical data (e.g., PTSD; Brown, 2006). To maximise sample size, full information maximum likelihood (FIML) was used to handle missing data on the endogenous variables. FIML avoids reduction or imputation of data and has nearly optimal statistical properties (Allison, 2003). Indirect effects were tested using bootstrapping (Shrout & Bolger, 2002), which is considered superior to other methods for testing the significance of indirect effects (MacKinnon, Lockwood, & Williams, 2004).

An important component of path analysis is model fit, which assesses the degree to which the path model supports the plausibility of hypothesised relations. Methodologists recommend reporting several indices to evaluate model fit (Bentler, 2007). Model fit was evaluated using the model $\chi 2$ statistic, Root mean square error of approximation (RMSEA) along with its 90% confidence interval, The Bentler comparative fit index (CFI), The Tucker–Lewis index (TLI), and the weighted root-mean-square residual (WRMR). Good model fit is reflected by CFI and TLI values >= 0.95 (Hu & Bentler, 1999); RMSEA values <.05 (Browne & Cudeck, 1993); and WRMR values <1.0 (Yu, 2002). Non-significant $\chi 2$ statistics also support good model

fit (Bollen, 1989). R^2 values were reported for each outcome to provide the amount of variance explained by all exogenous variables.

Effect sizes were reported in terms of standardised path coefficients (β) for continuous outcomes and odds ratios (ORs) for categorical outcomes. Standardised coefficients represent the expected standard deviation change in the outcome for a one standard deviation change in the exogenous variable.

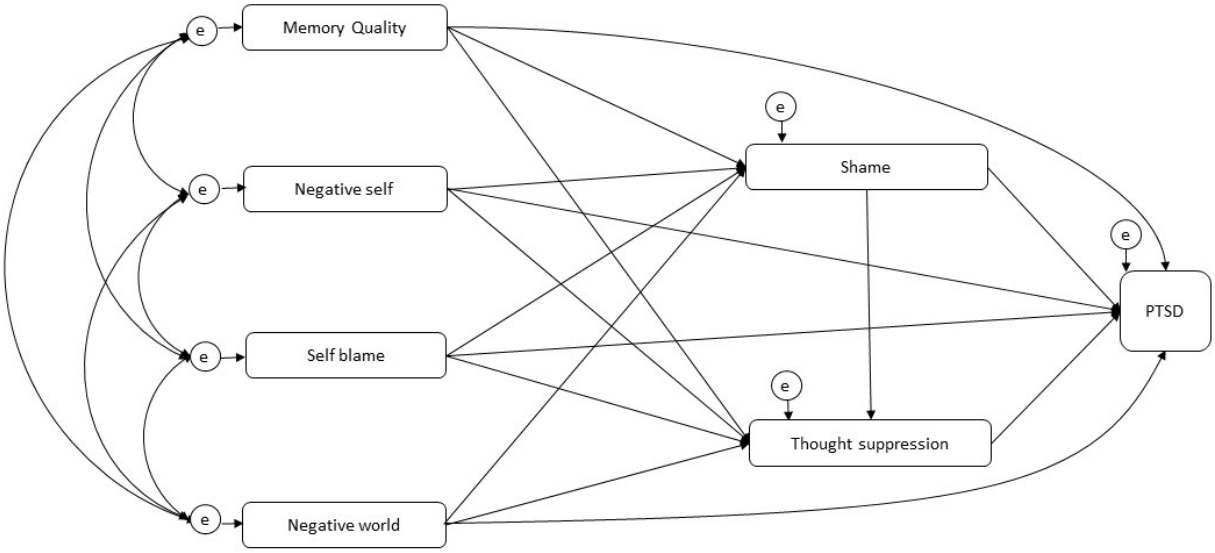


Figure 3.2. Conceptual path model describing the relationships between individual factors, trauma characteristics, psychological processes and PTSD.

Results

Table 3.2 presents descriptive statistics for psychological processes by PTSD status. Table 3.3. presents pair-wise correlations between all psychological processes and PTSD. With the exception of thought suppression and negative-world appraisals, which were not significantly correlated with each other, all psychological processes correlated with other processes and PTSD (Table 3.3). Negative self-appraisals, shame and memory were most strongly related to PTSD.

Table 3.2

Mean scores on measures of psychological processes by PTSD status

	PTSD (n = 252)		No PTSD (n = 147)	
Variable	Mean	SD	Mean	SD
PDS-5	48.85	13.16	15.41	7.24
Negative self	4.86	1.10	2.88	1.13
Negative world	5.79	0.94	4.51	1.29
Self-blame	4.52	1.28	3.35	1.44
Shame	42.58	18.02	18.54	14.71
Memory	30.66	5.91	22.94	6.56
Thought Suppression	12.59	4.05	10.77	5.39

Table 3.3

Pair-wise correlations between psychological processes and PTSD

	Variable	1	2	3	4	5	6	7
1	PTSD	1						
2	Negative-self	.653**	1					
3	Negative-world	.495**	.671**	1				
4	Self-blame	.390**	.657**	.452**	1			
5	Shame	.568**	.743**	.562**	.621**	1		
6	Memory	.519**	.529**	.500**	.330**	.545**	1	
7	Thought suppression	.188**	.114*	.182**	.102	.254**	.293**	1

***p<.001, **p<.01, *p<.05*

Overall model of PTSD

Figure 3.3 presents the fitted path model with significant paths displayed.

Direct effects

On PTSD. Results showed that memory quality (β=0.160, p=.021) and negative-self appraisals (β=0.514, p<.001) were positively associated with PTSD, even accounting for the intervening effects of shame and thought suppression. There was trend-level evidence that self-blame was negatively associated with PTSD (β=-0.126, p=.095), but no evidence that negative world appraisals were associated with PTSD (β=0.019, p=.780) in the context of other direct and indirect effects. Results further showed that shame (β=0.198, p=.013) and thought suppression (at trend level; (β=0.086, p=.090)) were positively associated with PTSD.

On shame. Results showed that memory (β=0.225, p<.001), negative self (β=0.358, p=.010), and self-blame (β=0.244, p=.001) were positively associated with shame in the context of all other direct and indirect influences, but negative world appraisals were not associated with shame (β=0.086, p=.227).

On thought suppression. Memory quality (β=0.275, *p*<.001) and shame (β=0.229, *p*=.020) were positively associated with thought suppression, and negative world appraisals (β=0.131, *p*=.068) were positively associated with thought suppression at the trend level. Self-blame was not associated with thought suppression (β=0.062, *p*=.456), and negative self-appraisals were negatively associated with thought suppression (β=-0.370, *p*=.005) in the context of all other model paths.

Indirect effects

On PTSD through shame. Results showed that shame mediated the relation between memory and PTSD (β=0.045, *p*=.033) and negative self and PTSD (β=0.071, *p*=.022). There was trend-level evidence that shame mediated the relation between self-blame and PTSD (β=0.048, *p*=.090), but no evidence that shame mediated the relation between negative world appraisals and PTSD (β=0.017, *p*=.331).

On PTSD through thought suppression. There were no indirect effects of memory (β=0.024, *p*=.128), negative self (β=-0.032, *p*=.184), negative world (β=0.011, *p*=.259), or self-blame (β=0.005, *p*=.518) on PTSD through thought suppression. There was no evidence of sequential mediation via shame/thought suppression (e.g. negative self -> shame -> thought suppression -> PTSD).

Individual factors and trauma characteristics

PTSD and psychological processes were influenced by myriad demographic and IPV-characteristics. Given the large number and diversity of effects, these results are presented in Table 3.5. Shame and thought suppression were not associated with any demographic or IPV-characteristics (in the context of all other effects).

Model fit

The model fit the data well: $\chi 2(69)=56.45$, p=.861; RMSEA=0.000 (90% CI=0.000, 0.016); CFI=1.000, TLI=1.000, WRMR=0.563. The model explained 76.8% of the variance in PTSD, 62.1% of the variance in shame, 16.0% of the variance in thought suppression, 17.2% of the variance in memory quality, 28.0% of the variance in Negative self-appraisals, 10.4% of variance in self-blame and 15.3% of the variance in negative world appraisals.

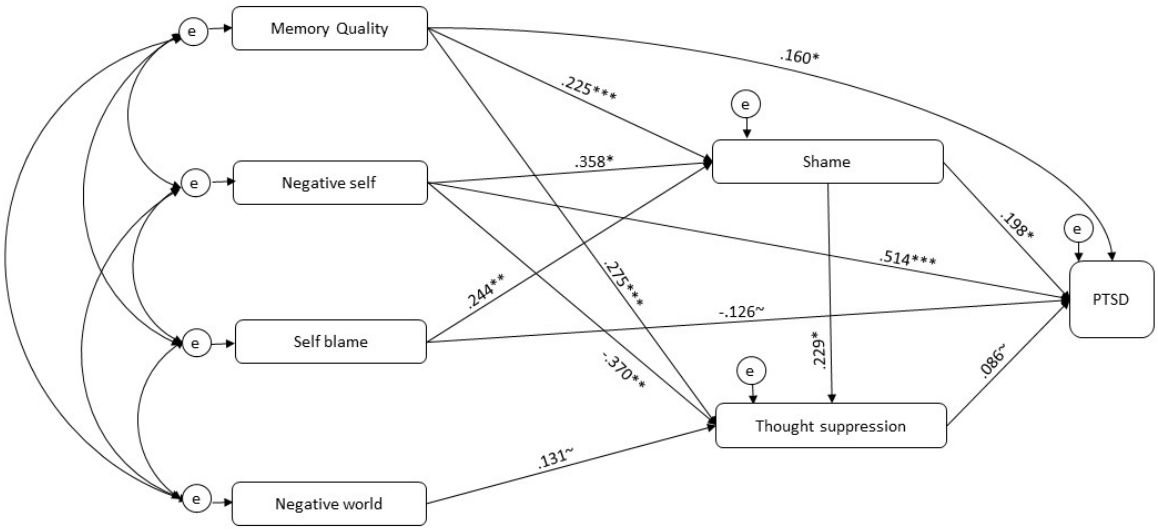


Figure 3.3. Significant relations between individual factors, trauma characteristics, psychological processes and PTSD

*Each model variable was also regressed on a set of individual factors and IPV characteristics (Table 3.5). **Model fit: $\chi 2(69)=56.45$, p=.861; RMSEA=0.000 (90% CI=0.000, 0.016); CFI=1.000; TLI=1.000; WRMR=0.563; R2 PTSD=76.8%.

Table 3.4

Path model results for direct and indirect effects of psychological processes on PTSD and other psychological processes

	β	SE	t	P	Bootstrapped 95% CI
Direct effects on PTSD					
Memory quality	0.160	0.070	2.301	.021	-
Negative-self appraisals	0.514	0.117	4.392	<.001	-
Self-blame appraisals	-0.126	0.076	-1.671	.095	-
Negative-world appraisals	0.019	0.068	0.280	.780	-
Thought suppression	0.086	0.051	1.693	.090	-
Shame	0.198	0.079	2.496	.013	-
Direct effects on Shame					
Memory	0.225	0.047	4.760	<.001	-
Negative-self appraisals	0.358	0.139	2.570	.010	-
Self-blame appraisals	0.244	0.072	3.383	.001	-
Negative-world appraisals	0.086	0.072	1.209	.227	-
Direct effects on Thought suppression					
Memory	0.275	0.066	4.157	<.001	-
Negative-self appraisals	-0.370	0.131	-2.815	.005	-
Self-blame appraisals	0.062	0.084	0.746	.456	-
Negative-world appraisals	0.131	0.072	1.828	.068	-
Shame	0.229	0.098	2.334	.020	-
Indirect effects of memory on PTSD through					
Shame	0.045	0.021	2.127	.033	[0.004, 0.086]
Thought suppression	0.024	0.016	1.522	.128	[-0.007, 0.054]
Indirect effects of negative self on PTSD through					
Shame	0.071	0.031	2.286	.022	[0.010, 0.132]
Thought suppression	-0.032	0.024	-1.327	.184	[-0.079, 0.015]
Indirect effects of self-blame on PTSD through					
Shame	0.048	0.028	1.696	.090	[-0.008, 0.104]
Thought suppression	0.005	0.008	0.647	.518	[-0.011, 0.022]
Indirect effects of negative world on PTSD through					
Shame	0.017	0.018	0.972	.331	[-0.017, 0.052]
Thought suppression	0.011	0.010	1.130	.259	[-0.008, 0.031]

Note. [a]Numbers in bold represent significant effects (p<.05). [b]In the context of the path model, shame and thought suppression were not associated with any demographic or IPV characteristics.

Table 3.5

Path model results for regression of PTSD and psychological processes on individual factors and trauma characteristics

Outcome					
PTSD	Beta	SE	t	p	OR
Age	-0.124	0.046	-2.658	.008	0.88
Education level*					
Any college education	0.359	0.176	2.036	.042	1.43
Any university education	0.421	0.189	2.226	.026	1.52
Number of abuse types	0.134	0.074	1.804	.071	1.14
Involvement in court proceedings	0.960	0.337	2.852	.004	2.61
Most recent relationship was abusive	0.334	0.145	2.297	.022	1.40
Memory	β	SE	t	p	
Experience of more than one abusive relationship	0.118	0.058	2.037	.042	-
Number of abuse types	0.320	0.057	5.613	<.001	-
Negative self					
White	0.129	0.051	2.527	.011	-
Education*					
Any college	-0.108	0.075	-1.434	.152	-
Any university education	-0.230	0.079	-2.908	.004	-
Employment Status**					
Employed	-0.152	0.066	-2.310	.021	-
Student	-0.284	0.064	-4.419	<.001	-
Number of abuse types	0.149	0.049	3.022	.003	-
Most recent relationship was abusive	0.270	0.045	6.000	<.001	-
Experience of more than one abusive relationship	0.134	0.053	2.517	.012	-
Self-blame					
White	0.162	0.058	2.796	.005	-
Most recent relationship was abusive	0.227	0.053	4.276	<.001	-
Experience of more than one abusive relationship	0.145	0.055	2.646	.008	-
First ever significant relationship was abusive	0.103	0.053	1.952	.051	-
Negative World					
Education*					
Any college	-0.028	0.081	-0.348	.728	-
Any university education	-0.179	0.086	-2.075	.038	-
Experience of more than one abusive relationship	0.116	0.054	2.151	.031	-
Number of abuse types	0.160	0.056	2.873	.004	-

Note. [a]*Reference category is any high school. [b]**Reference category is unemployed. [c]Outcomes are displayed in bold text, predictors in plain text. [d]Beta denotes unstandardised coefficients for binary outcomes; β denotes standardised coefficients for continuous outcomes. [e]Odds ratio (OR).

Discussion

This study sought to address how trauma-characteristics and psychological processes described in cognitive models of PTSD relate to outcomes following IPV. Our model of IPV-characteristics and post-trauma memory quality, appraisals, shame and thought suppression explained a large amount of the variance in risk of developing PTSD (76.8%). This suggests that cognitive models can be applied to understand the development of PTSD following IPV but also that other processes need to be considered.

Trauma memory quality

Cognitive models of PTSD (Brewin et al., 1996; Ehlers & Clark, 2000) suggest that trauma events that remain as sensory representations and are not effectively encoded, are easily trigged by situational cues and contribute to flashbacks characteristic of PTSD. Findings from the current study support this model, as results showed that trauma memory quality, in the form of increasingly sensory-based and poorly-verbalised memories, played a key role in PTSD development. This association has also been observed in other trauma populations, including in populations exposed to single-incident interpersonal assault (Ehlers, 2010).

The Ehlers and Clark cognitive model (2000) further proposes that memories characterised by sensory impressions from the trauma are often accompanied by re-experiencing of emotions that were initially experienced at the time of the trauma. Whilst cognitive models typically focus on fear as the primary emotion involved in the development of PTSD, theories of complex trauma suggest that other strong emotions such as shame may be the dominant emotion experienced and re-experienced by individuals exposed to enduring, interpersonal trauma (Lee, 2006). To examine how sensory-based memories and strong emotions interacted in the context of IPV, this study explored whether shame explained any of the relationship between sensory-based trauma memories and PTSD. Results showed that sensory-based memories were associated with heightened shame, which in turn was associated with PTSD. Findings from the current study can be understood within the broad cognitive framework of PTSD (E.g., Ehlers & Clark, 2000) but also support theories of complex trauma (e.g., Lee, 2006), which suggest that the role of emotions other than fear (e.g., shame) need to be more widely acknowledged in the development of PTSD following IPV. These findings support research in a more general trauma population, which noted that trauma memories are more often characterised by shame than by fear or horror (Holmes, Grey, & Young, 2005).

Post-trauma appraisals

Cognitive models of PTSD (e.g., Ehlers and Clark, 2000) describe how various post-trauma appraisals may contribute to an ongoing sense of current threat, which they propose is central to the development and/or maintenance of PTSD. For example, individuals may be more likely to experience an ongoing sense of current threat if they view the world as a dangerous place and question their abilities to keep themselves safe (e.g., 'I attract disaster', 'I cannot cope with stress'). Findings from the current study showed some support for this model, however only negative appraisals about oneself, and not self-blame or appraisals about the world, were associated with PTSD.

A similar study conducted within a trauma population exposed to motor-vehicle accidents, which also measured appraisals using the PTCI measure, also found that negative world appraisals were not an independent predictor of PTSD and that self-blame did not remain an independent predictor of PTSD when negative-self appraisals were present (Karl, Rabe, Zöllner, Maercker, & Stopa, 2009). The study authors suggested that the effect of self-blame on PTSD may be suppressed due to the overlap of the negative self and self-blame subscales, which could explain the current findings. Given these considerations, we conclude that negative-self appraisals appear to be the most maladaptive cognition in regards to increasing risk of PTSD.

Cognitive models of PTSD (Ehlers & Clark, 2000) also propose that the way individuals interpret the trauma and interpret their role or responses within the context of the trauma influences the emotions they experience. For example, individuals who perceive themselves negatively in relation to the trauma may experience strong feelings of shame. Results from the current study supported this model to the extent that appraisals of negative self and self-blame were found to be associated with shame.

Furthermore, shame was found to partially explain the relationship between negative self-appraisals and PTSD, which was in line with a previous study conducted in a sample of individuals exposed to IPV (Beck et al. 2011; 2015). Consistent with prior research, negative world appraisals were not associated with shame (Beck, 2011, 2015; Street, Gibson, & Holohan, 2005). However, other studies have found that negative world appraisals may influence feelings of guilt, which in turn contribute to PTSD (Beck, 2011, 2015; Street et al., 2005). The current study did not examine guilt, and future research could usefully explore the role of this emotion in this population.

Thought suppression

The cognitive framework of PTSD (Ehlers and Clark, 2000) explains that individuals may employ certain coping strategies in attempt to manage distressing post-

trauma memories, appraisals or emotions. Paradoxically, some coping strategies can contribute to the maintenance of PTSD. In particular, research has shown that thought suppression is associated with increased frequency of intrusive symptomology (Shipherd & Beck, 2005). Consistent with cognitive models of PTSD, the current study found that individuals with more negative world appraisals (evidence at the trend-level), more sensory-based memories and more shame employed more thought suppression strategies. However, self-blame was not associated with thought suppression, and, curiously, negative self-appraisals were significantly but negatively associated with thought suppression in the path model. The pairwise correlation (Table 3.3) of thought suppression and negative self-appraisal was positive, so this finding is difficult to explain in the context of a complex path model with many direct and indirect relationships.

Whilst this study supported the idea that individuals with more distressing emotions, appraisals and memories engage in more thought suppression strategies, results showed that thought suppression did not mediate any relationships between these various psychological processes and PTSD. This is likely because there was only trend-level evidence ($p=<.10$) that thought suppression led to increased risk of PTSD, and the effect size of this relationship was small ($\beta=0.086$). Research in other trauma populations has generally found more convincing evidence to support the role of thought suppression in the development of PTSD (Shipherd & Beck, 2005). The cross-sectional nature of this study may have limited the extent to which the effect of coping on PTSD could be observed. Ehlers and Clark (2000) propose that coping strategies contribute to the maintenance of PTSD because they prevent maladaptive post-trauma memories and interpretations from being changed. Examining interrelations between these psychological processes over time might provide greater insight into how coping contributes to PTSD.

Shame

In support of conceptualisations of complex trauma (Lee, 2006), shame played a key role in the development and/or maintenance of PTSD in this sample. Shame may impede effective processing of a trauma and contribute to intrusive trauma-related thoughts and memories (Brewin, 2001; Brewin et al., 1996; Robinaugh, 2010). The current study showed that shame explained at least some of associations between memories and PTSD and negative self-appraisals and PTSD. Furthermore, individuals with increased shame engaged in more maladaptive thought suppression strategies. Whilst cognitive theories of PTSD discuss shame as a possible emotion involved in the

aftermath of trauma, our findings suggest that shame plays an integral role in the development of PTSD following IPV and needs to be more widely emphasised in conceptualisations of this disorder following this type of trauma.

IPV characteristics

Lastly, the Ehlers and Clark (2000) model of PTSD proposes that individual and trauma-related characteristics influence psychological processes and in turn influence the development and/or maintenance of PTSD. In support of this, the current study found that the proposed path model fit the observed data better when demographic and IPV-characteristics were accounted for (Table 3.5).

In particular, results showed that being younger and more educated was associated with an increased risk of developing PTSD following IPV, contrary to previous research that found education was protective but that age was not a relevant factor (Coker et al., 2005). This study also found evidence that experiencing a greater number of co-occurring abuse types was associated with more maladaptive appraisals and trauma memories, and trend-level evidence ($p<.10$) that concomitant abuse was associated with developing PTSD. Previous research has produced mixed findings regarding co-occurrence of abuse-types in the context of PTSD (Basile, Arias, Desai, & Thompson, 2004; Pico-Alfonso, 2005).

Findings have also been mixed as to whether desistance from an abusive relationship is a protective factor for developing PTSD (Coker et al., 2005; Woods, 2000). The current study found that time elapsed since the abusive relationship ended was *not* significantly associated with PTSD or with any psychological processes that contribute to PTSD. However, recent experience of a *non-abusive* relationship was a protective factor for PTSD, suggesting that ongoing relationship experiences subsequent to IPV may influence adjustment more than just distance from IPV itself.

Alternatively, individuals who experience fewer difficulties following IPV may be better able to subsequently develop positive relationships. Risk of re-victimisation may be exacerbated for individuals with PTSD or with negative self-perceptions (Clements & Sawhney, 2000; Iverson, 2011; Whiting, Simmons, Havens, Smith, & Oka, 2009). In the current study, experiencing more than one abusive relationship was associated with increasingly maladaptive memories and appraisals. Future research needs to explore relations between non-abusive relationship experiences, repeated IPV experiences, and appraisals, in order to better understand risk factors for re-victimisation and for PTSD.

Importantly, individuals who attended court proceedings were at increased risk of experiencing PTSD. The mechanisms of this phenomenon are unclear, as more serious cases of IPV may be more likely to go to court, or going to court may itself be traumatising. However, there is some evidence to suggest that accessing the justice system in relation to violent or sexual crime can lead to secondary victimisation and increased distress and self-blame (Koss, 2000; Parsons & Bergin, 2010). Research should investigate the impact of attending court in relation to IPV, to inform policy and practice within the justice system.

Treatment Implications

This study supports current opinion that the existing classification and theoretical model of PTSD is a useful starting point to understand memories, appraisals, coping and emotions of individuals exposed to complex trauma (Resick et al., 2012). Within this framework, the current study suggests that self-appraisals and shame may be of particular importance following IPV.

If cognitive models are applicable for understanding PTSD following IPV, treatment based on this framework (TF-CBT) may also be appropriate. TF-CBT aims to facilitate processing of trauma memories and to modify maladaptive appraisals and coping strategies. Whilst the current study showed that trauma-memories were associated with PTSD, memory-focused components of TF-CBT (e.g., exposure) are contraindicated in IPV populations as reducing hypervigilance to IPV-related stimuli could increase risk of re-victimisation (Johnson & Zlotnick, 2009). Additionally, it is unclear if exposure techniques reduce emotions other than fear (e.g., shame), and imaginal re-living of trauma may actually increase feelings of shame (Lee et al., 2001).

TF-CBT components which focus on modifying appraisals and coping responses may be more useful in an IPV population (Johnson, Zlotnick, & Perez, 2011). Findings from the current study suggest that intervention should target negative self-appraisals, self-blame and thought suppression. Targeting these appraisals may also impact PTSD symptomology by reducing shame. Previous research with individuals exposed to interpersonal violence showed that challenging unhelpful cognitions is as effective as exposure techniques in reducing PTSD symptomology (Resick et al., 2008).

It is also essential to consider how shame may prevent individuals from accessing treatment (Lee et al., 2001; Overstreet & Quinn, 2013). Future research should explore shame as a barrier to help-seeking and consider how this can be addressed.

Theoretical and Research Implications

Whilst the results from the current study suggest that current cognitive models are likely to be useful for understanding the development and maintenance of PTSD following IPV, it also suggests additional factors outside a cognitive framework are also relevant to this disorder, and current models could be usefully extended by considering these factors. For example, theories of complex trauma suggest that strong emotions other than fear may contribute to ongoing difficulties. In support of this, the current study found that shame was associated with PTSD outcomes in this population, however other emotions proposed by complex trauma theorists (e.g., guilt and anger) were not examined. It is believed that there is scope to consider such emotional responses to trauma within current cognitive frameworks of PTSD, as models already specify that 'other strong emotions (other than fear)' may contribute to PTSD by impeding effective processing of the trauma and trauma memories (e.g., Brewin et al., 1996; Ehlers & Clark, 2000). Therefore, further research is required to explore how specific emotions may interact with other psychological mechanisms proposed within cognitive models, and how such interactions may give rise to PTSD symptoms.

In addition, in line with current cognitive models of PTSD, this study explored primarily pre-trauma objective factors (e.g., type or duration of abuse) and post-trauma psychological processes (e.g., memory, appraisals and coping). The interplay of these factors contributed to 76.8% of the variation in PTSD outcomes in this sample, indicating that there is still a moderate proportion of unexplained variance. Research in single-incident trauma populations has suggested that other pre and post-trauma factors - not currently included in cognitive models of PTSD - may contribute to PTSD outcomes. For example, a meta-analysis of risk factors for PTSD identified that an individual's post-trauma psychological environment (e.g., family functioning and availability of social support) was associated with PTSD (Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012). In addition, it is well documented that a proportion of individuals who experience childhood abuse will go on to experience IPV (Becker, Stuewig, & McCloskey, 2010). Research suggests that individuals with childhood abuse experiences may develop entrenched ways of coping and enduring cognitions about themselves/the world that influence how they respond to subsequent IPV and in turn contributes to ongoing PTSD symptomology (Becker et al., 2010).

This study concludes that current cognitive models are an appropriate foundation for beginning to consider some of the variables involved in the development of PTSD and how they interact to create ongoing difficulties. However, further research

needs to explore additional pre and post-trauma variables in order to usefully extend current theoretical frameworks and to develop a more comprehensive understanding of PTSD within an IPV population.

Limitations

This study was cross-sectional, which limits the ability to identify causal mechanisms of PTSD development. In addition, it is important to note that some of the diagnostic criteria for PTSD may reflect some of the key psychological processes investigated in this study. For example, one DSM-V criterion for PTSD is 'negative thoughts about one's self', which was operationalised as an independent construct (appraisals of negative self and self-blame) implicated in PTSD development. However, the current study used well-defined standardised measures, so while there may be some overlap between the measures, the authors remain confident that the independent and dependent variables within this study are unique constructs. In addition, Ehlers and Clark (2000) point out that certain mechanisms are implicated in both the development and maintenance of PTSD. As a result, it may be difficult to conceptually disentangle constructs that may be both drivers and sequalae of the disorder. Longitudinal research is required to better understand the complex interplay of these processes.

An additional limitation of this study is that it relied on self-report measures and it would have been useful to verify PTSD diagnoses using clinical tools. However, using self-report measures meant the study was accessible to a wider population of individuals than just those who access services. Lastly, the current study reflects general limitations in this research area in that it only analysed data from females. Future work should identify barriers to participation within male and non-binary populations.

Conclusion

Our model of IPV characteristics, trauma memory quality, post-trauma appraisals, shame and thought suppression explained a large amount of the variance in risk of developing PTSD. Sensory-based and poorly-verbalised trauma memories, negative self-appraisals, and shame were associated with increased risk of developing PTSD. This study concludes that cognitive models of PTSD are applicable for understanding PTSD following IPV, but that the role of shame needs to be incorporated into theoretical frameworks and considered in intervention.

References

Allison, P. D. (2003). Missing data techniques for structural equation modeling. *Journal of abnormal psychology, 112*(4), 545.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

Basile, K. C., Arias, I., Desai, S., & Thompson, M. P. (2004). The differential association of intimate partner physical, sexual, psychological, and stalking violence and posttraumatic stress symptoms in a nationally representative sample of women. *Journal of Traumatic Stress, 17*(5), 413-421.

Beck, J. G., McNiff, J., Clapp, J. D., Olsen, S. A., Avery, M. L., & Hagewood, J. H. (2011). Exploring negative emotion in women experiencing intimate partner violence: Shame, guilt, and PTSD. *Behavior therapy, 42*(4), 740-750.

Beck, J. G., Reich, C. M., Woodward, M. J., Olsen, S. A., Jones, J. M., & Patton, S. C. (2015). How do negative emotions relate to dysfunctional posttrauma cognitions? An examination of interpersonal trauma survivors. *Psychological Trauma: Theory, Research, Practice, and Policy*, *7*(1), 3–10.

Becker, K. D., Stuewig, J., & McCloskey, L. A. (2010). Traumatic stress symptoms of women exposed to different forms of childhood victimization and intimate partner violence. *Journal of Interpersonal Violence, 25*(9), 1699-1715.

Bentler, P. M. (2007). On tests and indices for evaluating structural models. *Personality and Individual differences*, *42*(5), 825-829.

Black, M. C., Basile, K. C., Smith, S. G., Walters, M. L., Merrick, M. T., Chen, J., & Stevens, M. R. (2011). *National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Bollen, K.A. (1989). Structural equations with latent variables. Canada: Wiley.

Brewin, C. R. (2001). Memory processes in post-traumatic stress disorder. *International Review of Psychiatry, 13*(3), 159-163.

Brewin, C. R., Dalgleish, T., & Joseph, S. (1996). A dual representation theory of posttraumatic stress disorder. *Psychological Review, 103*(4), 670–686.

Brewin, C. R., & Holmes, E. A. (2003). Psychological theories of posttraumatic stress disorder. *Clinical psychology review, 23*(3), 339-376.

Brown, S. L., & Bulanda, J. R. (2008). Relationship violence in young adulthood: A comparison of daters, cohabitors, and marrieds. *Social Science Research*, *37*(1), 73–87.

Brown, T. A. (2006). Confirmatory factor analysis for applied research. Guilford Publications.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Sage focus editions*, *154*, 136-136.

Clements, C. M., & Sawhney, D. K. (2000). Coping with domestic violence: Control attributions, dysphoria, and hopelessness. *Journal of traumatic stress, 13*(2), 219-240.

Clohessy, S., & Ehlers, A. (1999). PTSD symptoms, response to intrusive memories and coping in ambulance service workers. *British Journal of Clinical Psychology*, *38*(3), 251–265.

Cloitre, M., Garvert, D. W., Brewin, C. R., Bryant, R. A., & Maercker, A. (2013). Evidence for proposed ICD-11 PTSD and complex PTSD: A latent profile analysis. *European journal of psychotraumatology, 4*(1), 20706.

Coker, A. L., Weston, R., Creson, D. L., Justice, B., & Blakeney, P. (2005). PTSD symptoms among men and women survivors of intimate partner violence: The role of risk and protective factors. *Violence and victims, 20*(6), 625.

Ehlers, A. (2010). Understanding and treating unwanted trauma memories in posttraumatic stress disorder. *Journal of Psychology, 218*(2), 141–145.

Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, *38*(4), 319-345.

Ehlers, A., & Steil, R. (1995). Maintenance of Intrusive Memories in Posttraumatic Stress Disorder: A Cognitive Approach. *Behavioural and Cognitive Psychotherapy*, *23* (3), 217–249.

Foa, E. B., Ehlers, A., Clark, D. M., Tolin, D., & Orsillo. (1999). The posttraumatic cognitions inventory (PTCI): Development and validation. *Psychological Assessment*, *11*(3), 303–314.

Foa, E. B., Mclean, C. P., Zang, Y., Zhong, J., Powers, M. B., Kauffman, B. Y., … Knowles, K. (2016). Psychometric Properties of the Posttraumatic Diagnostic Scale for DSM – 5 (PDS-5). *Psychological Assessment*, *28*(10), 1166–1171.

Fritz, M. S., & Mackinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science*, *18*(3), 233–9.

Holmes, E. A., Grey, N., & Young, K. A. (2005). Intrusive images and "hotspots" of trauma memories in posttraumatic stress disorder: An exploratory investigation of emotions and cognitive themes. *Journal of Behavior Therapy and Experimental Psychiatry, 36*(1), 3-17.

Home Office. (2003). Safety and Justice: The Government's Proposals on Domestic Violence. London: Author.

Hox, J. J., & Bechger, T. M. (1998). An introduction to structural equation modeling. *Family Science Review, 11,* 354-373.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, *6*(1), 1-55.

Iverson, K. M., Gradus, J. L., Resick, P. A., Suvak, M. K., Smith, K. F., & Monson, C. M. (2011). Cognitive-behavioral therapy for PTSD and depression symptoms reduces risk for future intimate partner violence among interpersonal trauma survivors. *Journal of Consulting and Clinical Psychology*, *79*(2), 193–202.

Johnson, D. M., & Zlotnick, C. (2009). HOPE for Battered Women With PTSD in Domestic Violence Shelters. *Professional Psychology: Research and Practice*, *40*(3), 234–241.

Johnson, D. M., Zlotnick, C., & Perez, S. (2011). Cognitive behavioral treatment of ptsd in residents of battered women's shelters: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology*, *79*(4), 542–551.

Karl, A., Rabe, S., Zöllner, T., Maercker, A., & Stopa, L. (2009). Negative self-appraisals in treatment-seeking survivors of motor vehicle accidents. *Journal of Anxiety Disorders, 23*(6), 775-781.

Koss, M. P. (2000). Blame, shame, and community: Justice responses to violence against women. *American Psychologist, 55*(11), 1332-1343.

Krause, E. D., Kaltman, S., Goodman, L. A., & Dutton, M. A. (2008). Avoidant coping and PTSD symptoms related to domestic violence exposure: A longitudinal study. *Journal of Traumatic Stress*, *21*(1), 83–90.

Lee, D. (2006). Case conceptualisation in complex PTSD: Integrating theory with practice. In N. Tarrier & J. Johnson (Eds.), *Case formulation in cognitive behaviour therapy: The treatment of challenging and complex cases* (pp.142-166). Hove: Routledge.

Lee, D. A., Scragg, P., & Turner, S. (2001). The role of shame and guilt in traumatic events: A clinical model of shame- based and guilt- based PTSD. *Psychology and Psychotherapy: Theory, Research and Practice, 74*(4), 451-466.

MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate behavioral research, 39*(1), 99-128.

Matos, M., Pinto- Gouveia, J., & Costa, V. (2013). Understanding the importance of attachment in shame traumatic memory relation to depression: The impact of emotion regulation processes. *Clinical Psychology & Psychotherapy, 20*(2), 149-165.

Meiser-Stedman, R., Smith, P., Yule, W., & Dalgleish, T. (2007). The trauma memory quality questionnaire: Preliminary development and validation of a measure of trauma memory characteristics for children and adolescents. *Memory*, *15*(3), 271–279.

Nathanson, A. M., Shorey, R. C., Tirone, V., & Rhatigan, D. L. (2012). The prevalence of mental health disorders in a community sample of female victims of intimate partner violence. *Partner abuse, 3*(1), 59.

National Institute of Clinical Excellence (NICE). (2005). Post-traumatic stress disorder: management. Retrieved from https://www.nice.org.uk/guidance/cg26

Office for National Statistics (ONS). (2016). *Intimate Personal Violence and Partner Abuse*. London: Office for National Statistics.

Øktedalen, T., Hagtvet, K. A., Hoffart, A., Langkaas, T. F., & Smucker, M. (2014). The Trauma Related Shame Inventory: Measuring Trauma-Related Shame Among Patients with PTSD. *Journal of Psychopathology and Behavioral Assessment*, *36*(4), 600–615.

Overstreet, N. M., & Quinn, D. M. (2013). The intimate partner violence stigmatization model and barriers to help seeking. *Basic and applied social psychology, 35*(1), 109-122.

Parsons, J., & Bergin, T. (2010). The impact of criminal justice involvement on victims' mental health. *Journal of Traumatic Stress, 23*(2), 182-188.

Pico-Alfonso, M. A. (2005). Psychological intimate partner violence: The major predictor of posttraumatic stress disorder in abused women. *Neuroscience & Biobehavioral Reviews, 29*(1), 181-193.

Reich, C. M., Jones, J. M., Woodward, M. J., Blackwell, N., Lindsey, L. D., & Beck, J. G. (2015). Does self-blame moderate psychological adjustment following intimate partner violence? *Journal of interpersonal violence, 30*(9), 1493-1510.

Resick, P. A., Bovin, M. J., Calloway, A. L., Dick, A. M., King, M. W., Mitchell, K. S., ... & Wolf, E. J. (2012). A critical evaluation of the complex PTSD literature: Implications for DSM- 5. *Journal of traumatic stress, 25*(3), 241-251.

Resick, P. A., Galovski, T. E., Uhlmansiek, M. O. B., Scher, C. D., Clum, G. A., & Young-Xu, Y. (2008). A Randomized Clinical Trial to Dismantle Components

of Cognitive Processing Therapy for Posttraumatic Stress Disorder in Female Victims of Interpersonal Violence. *Journal of Consulting and Clinical Psychology*, *76*(2), 243–258.

Robinaugh, D. J., & McNally, R. J. (2010). Autobiographical memory for shame or guilt provoking events: Association with psychological symptoms. *Behaviour Research and Therapy, 48*(7), 646-652.

Shipherd, J. C., & Beck, J. G. (2005). The role of thought suppression in posttraumatic stress disorder. *Behavior Therapy, 36*(3), 277-287.

Shorey, R. C., Sherman, A. E., Kivisto, A. J., Elkins, S. R., Rhatigan, D. L., & Moore, T. M. (2011). Gender differences in depression and anxiety among victims of intimate partner violence: The moderating effect of shame proneness. *Journal of interpersonal violence, 26*(9), 1834-1850.

Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: new procedures and recommendations. *Psychological methods*, *7*(4), 422.

Street, A. E., & Arias, I. (2001). Psychological abuse and posttraumatic stress disorder in battered women: Examining the roles of shame and guilt. *Violence and victims, 16*(1), 65.

Street, A. E., Gibson, L. E., & Holohan, D. R. (2005). Impact of childhood traumatic events, trauma-related guilt, and avoidant coping strategies on PTSD symptoms in female survivors of domestic violence. *Journal of Traumatic Stress*, *18*(3), 245–252.

Trickey, D., Siddaway, A. P., Meiser-Stedman, R., Serpell, L., & Field, A. P. (2012). A meta-analysis of risk factors for post-traumatic stress disorder in children and adolescents. *Clinical Psychology Review*, *32*, 122–138.

van der Kolk, B. (2001). The assessment and treatment of complex PTSD. *Traumatic Stress*, 1–29.

Waldrop, A. E., & Resick, P. A. (2004). Coping among adult female victims of domestic violence. *Journal of Family Violence*, *19*(5), 291–302.

Whiting, J. B., Simmons, L. A., Havens, J. R., Smith, D. B., & Oka, M. (2009). Intergenerational transmission of violence: The influence of self-appraisals, mental disorders and substance abuse. *Journal of Family Violence, 24*(8), 639-648.

Woods, S. J. (2000). Prevalence and patterns of posttraumatic stress disorder in abused and postabused women. *Issues in mental health nursing, 21*(3), 309-324.

Yu, C. Y. (2002). *Evaluating cutoff criteria of model fit indices for latent variable models with binary and continuous outcomes* (Vol. 30). Los Angeles: University of California, Los Angeles.

Executive summary

Intimate partner violence (IPV) refers to any form of abuse in the context of an intimate relationship between two people, including physical, psychological, sexual, and financial abuse. IPV is most common amongst young adults (16 to 24 years old) and a high incidence of individuals develop post-traumatic stress disorder (PTSD) following this type of trauma.

It is well known that experiencing interpersonal trauma is associated with increased risk of developing PTSD compared to experiencing non-interpersonal trauma (e.g. an accident or natural disaster). In addition, it is suggested that ongoing and chronic exposure to trauma may have a different impact on individuals wellbeing than experiencing a single-incident trauma (e.g. a road traffic accident).

Well-established cognitive models of PTSD are primarily supported by research which has been conducted with individuals who have experienced single-incident trauma. There is much less research to show whether or not these models are useful for understanding the development of PTSD after chronic trauma such as IPV. It is especially important to understand whether these models are applicable across a range of trauma types, as these models form the basis for the treatment that is currently recommended for PTSD (trauma-focused cognitive behavioural therapy, TF-CBT).

Cognitive models of PTSD suggest that key psychological processes determine whether or not individuals go on to develop this disorder. These processes include: 1) the way an individual remembers the traumatic event, 2) the way an individual interprets the meaning of the trauma and any reactions they may have had following the trauma, 3) the emotional reactions an individual has in response to the trauma and 4) the strategies that an individual uses in attempt to manage distressing thoughts, feelings and memories about the trauma.

This study aimed to explore whether or not these key psychological processes were associated with an increased risk of developing PTSD after experiencing IPV. Three-hundred and ninety-nine (399) females with current or past experiences of IPV were included in this study. The study was advertised via flyers in public places, and online via websites of relevant charities, and through social media outlets. Participants were asked to complete an online survey which asked them questions about their history of IPV (e.g. the age at which they first experienced IPV) and asked them questions in relation to the most recent relationship in which they had experienced IPV (e.g. the frequency of abuse they had experienced in this relationship). The survey also included measures which assessed the types of memories, thoughts, feelings and behaviours that

participants reported in response to the trauma. In addition, the survey included a measure which determined whether participants met the cut-off criteria for a probable diagnosis for PTSD.

This study found that certain psychological processes placed individuals at increased risk of developing PTSD. In particular, individuals who experienced memories about the trauma that had lots of sensory characteristics (e.g. they heard or smelled things that they had initially experienced during the traumatic event) were at increased risk of developing PTSD. Furthermore, individuals who had lots of negative thoughts about themselves and how they acted during the trauma or how they responded to the trauma were at increased risk of PTSD. This study also found that individuals with high levels of shame were more likely to develop PTSD.

In addition, participants who described certain characteristics of IPV were at increased risk of developing PTSD. Experiencing a number of different types of abuse (e.g. co-occurring physical, sexual and emotional abuse), and having to go to court in relation to the IPV were both risk factors for developing PTSD. Younger participants were also at increased risk of PTSD.

This study suggested that cognitive models are broadly useful to understand PTSD outcomes in an IPV population. However, these models typically focus on fear as the primary emotion involved in PTSD and this study suggested that in an IPV population shame may be a key emotion that needs to be more clearly identified and assessed.

In regards to treatment, this study suggested that intervention should focus on negative thoughts individuals have about themselves and their reactions to the trauma. In addition, treatment might usefully target the high levels of shame that some individuals present with following IPV.

The results of this study have to be considered with some limitations in mind, as all of the factors explored were based on self-report measures. In addition, all of the data was collected at one time point and so it is not possible to draw clear conclusions about factors that cause PTSD. However, the results of this study generally provide support for the idea that cognitive models of PTSD can be used to understand the development of this disorder following IPV and that treatments based on this model might be useful.

Connecting narrative

Throughout training I have had the opportunity to really explore and understand how research can improve and enhance clinical practice. I have identified knowledge gaps in particular clinical areas and have been able to develop ideas and design projects in the hope of addressing these gaps. Along the way I have developed skills in both quantitative and qualitative research and have learnt about both the challenges and benefits of conducting research. This narrative will reflect on the process of conducting my main research project, service improvement project and systematic review and will also discuss the five case studies I completed throughout training, which are presented in a separate portfolio.

Main research project

Study selection and development. When I started the doctorate in clinical psychology I was most interested in working in the field of early childhood or interpersonal trauma. With this in mind, I chose to conduct research focusing on interpersonal trauma and was interested in understanding how individuals, and particularly young people, experienced chronic trauma across formative years, when they were still developing an understanding of themselves, the world and others.

Whilst on placement I began to understand the prevalence of trauma histories in individuals with psychological difficulties and to recognise the impact that ongoing trauma can have on an individual's developing sense of self. It struck me how chronic and interpersonal trauma could disrupt key transitional processes throughout childhood, adolescence and early adulthood. On the other hand, working with people with such adversity made me realise the resilience and strength that people possess, and I wanted to understand how this resilience and ability to overcome trauma could be encouraged and promoted within the individuals I was working with.

Early in our training we had teaching on posttraumatic stress disorder, and I remember learning about the cognitive model of PTSD and about how the way in which individuals interpret trauma is key to their ongoing wellbeing. I was especially interested in understanding how individuals might interpret trauma inflicted by a caregiver, a family member or a significant other – someone in a position of trust or intimacy. I wanted to understand how interpretations of this type of trauma might influence an individual's sense of self and their emotions.

I chose to focus on interpersonal trauma for both my main research project and for my systematic review. Given that training requires the completion of several projects, whilst completing clinical placements alongside, I chose to focus on a sample

of individuals over 18 years old for my main project. I was advised by my supervisors that recruiting a sample of children exposed to interpersonal trauma would carry added complications and lead to additional ethical considerations that might make this project increasingly challenging and possibly unfeasible. Balancing my ideas and interests with the feasibility of what I could achieve during training, I chose to focus on child maltreatment for my systematic review and intimate partner violence in young adults for my main project. I became increasingly interested in the topic of intimate partner violence in young adulthood and recognised how experiencing trauma in the context of an early and significant intimate relationship could have a big impact on an individual's developing identity and their interpersonal relations.

Recruitment. Upon reviewing the literature focused on intimate partner violence (IPV) I became aware of how much of the existing research was conducted in help-seeking settings such as domestic violence shelters or mental health services. Part of my interest in the field of trauma is understanding the resilience and growth of individuals following adversity, and I wanted to ensure that I recruited individuals who were adjusting well following trauma, as well as those experiencing ongoing difficulties. I also wanted to ensure I captured those individuals who felt unable to access help-seeking settings and unable to openly disclose or talk about the abuse they had experienced. For that reason, I chose to recruit individuals from the community, as well as those who accessed domestic abuse charities, and I tried to ensure the project was as anonymous as possible to promote engagement. Social media was a very powerful method of recruitment, and I was overwhelmed with how many individuals were willing to participate.

One of the main challenges I had in recruitment was recruiting enough individuals who identified as male or non-binary, which limited the extent to which I could discuss these groups of individuals in my project. This is a common problem in IPV research and I tried to address this issue by involving charities specific to working with men in this project. I was very grateful to the mankind initiative for promoting this study and sharing their knowledge with me. I feel strongly that research efforts need to be increased with males exposed to IPV and that barriers to participation need to be identified and addressed.

Data collection. Participants were asked to complete this study online. I was conscious about the sample of participants I was recruiting, and about how some of them may still be in abusive situations. Consequently, I took several steps to protect their identity. All advertising and references to the research project referred to the

'REPAIR' project (Research exploring psychological processes after abuse in intimate relationships) so that the nature of the study was not widely advertised. The study was accessed via a website which provided participants with a list of self-help resources and helpline numbers. The website also provided information about how to remove any traces of the website from browser history. IP addresses were not stored at any point in data collection, and individuals did not provide any identifiable information throughout the study. I consulted with a specialist in website design in order to understand these steps to protecting participant privacy.

The nature of the information I was collecting from participants was sensitive and at times upsetting to see. I was particularly affected by reading the frequency and severity of which individuals experienced IPV. As a lot of my recruitment efforts included involvement in social media and online self-help resources, I found it positive and helpful to read about the various campaigns, awareness projects and programmes that are being promoted regarding IPV, and really valued hearing about the incredible work that is ongoing in this area.

Challenges and personal learning. One of the biggest challenges for me was being able to put my ideas into action and recognising when the scope of my ideas might not be feasible in practice. I initially wanted to ask participants about every emotion, feeling, thought and experience they might have had, and my supervisors were very good at helping me to understand what might actually be realistic to investigate. Similarly, when I gathered my data I wanted to explore all the questions I had in mind about IPV, and my supervisors helped me to recognise the parameters of what I could investigate in one research project and to narrow my focus so that I had could produce a comprehensive and useful study.

Clinical Implications. Despite knowing that individuals exposed to interpersonal trauma might be most at risk of ongoing difficulties, the current PTSD diagnosis and treatment guidelines are primarily based on research with populations exposed to to non-interpersonal, single-incident trauma. My study showed that current approaches to PTSD may be useful following IPV but it also highlighted that the assessment of shame needs to be emphasised and considered in this population.

In addition, this study suggested that one of greatest risk factors for developing PTSD following IPV was the experience of attending court proceedings in relation to this abuse. Interestingly, this factor was included in my study after consulting with people with personal experience of IPV at a local charity, who told me anecdotally that attending court was very traumatising. The findings from my study supported this view.

This is important for clinicians to know and also indicates that adjustments need to be made to policy or practice within the justice system.

Systematic review

Review selection and development. The idea for this systematic review was again influenced by my general interest in the impact of interpersonal trauma across key life stages. I wanted to focus on children in this review and was again interested in how the current trauma-specific diagnosis (PTSD) might be applied in this population, given that most research supporting this diagnosis is based in single-incident trauma populations.

Challenges and personal learning. In hindsight this review was the most challenging project that I conducted. The process of conducting a systematic review requires you to be thorough, rigorous, and decisive, and at times I found it difficult to make the necessary decisions (e.g. defining eligibility criteria, finalising search terms) to allow me to move on to the next stage of the process. This was the first project I started during training, and it was a steep learning curve to learn all of the steps involved in conducting a review and to feel confident in my own ability to make decisions, trust my decisions and advocate my own ideas.

Looking back, I feel that the scope of this project was too big but once I had started it, I felt unable to go back to the development stage of refining my ideas, doing more background reading in the area, and re-designing the review. Over the course of training I think I have learnt to trust my instinct when projects do not feel manageable or appropriate and I hope that in future I would feel more confident about making the decision to go back to the development stage of a project when this happens. I think this is a key research skill that I have developed throughout training.

Contributions to the literature. There is a lot of literature focusing on child maltreatment outcomes. I hope that this review synthesises and summarises the research in this area and starts to identify some of the key psychological processes that might place individuals at increased risk of poor adjustment following trauma experiences. Furthermore, this review identified several avenues for future research in this area and highlighted the need for research to really consider the interplay of psychological processes and maltreatment-characteristics in ongoing adjustment.

Again, the majority of research which forms the evidence-base for current conceptualisations and treatment of PTSD is conducted in single-incident trauma populations and this review aimed to explore components of the current PTSD model and to understand how relevant they are following child maltreatment. This review

identified some of the possible psychological processes that might contribute to psychological difficulties following maltreatment and I hope that this could also inform clinical practice by helping clinicians to be aware of potential risk factors that children might present with.

Service improvement project

Study selection and development. My decision to conduct this service improvement project was influenced by a number of factors. Prior to training I had volunteered in an eating disorder charity and I already an interest in this clinical area. Dr Sarah Latham and Dr Lauren Russow (external supervisors of this project) presented this potential project at the research fair in the first year of training, and I was immediately interested. In addition, I have been really interested in the systemic training component of the Bath training course and have really enjoyed learning more about systemic theory and systemic practice. My service development project was initially proposed as an evaluation study for a multi-family therapy intervention in a regional child and adolescent mental health service (CAMHS) and I thought this would be a good opportunity to better understand the application of systemic theory in practice. In my third year of training I chose to do my elective placement in a CAMHS eating disorder service, and this has further consolidated my understanding of systemic intervention. Being part of a CAMHS eating disorder service has made me appreciate the value of this service improvement project, as there is currently a lot of transformation and change within these services across the country and I believe it is important to understand how recommended treatments can be effectively offered in these newly-developed service settings.

Recruitment. During this project I experienced difficulties in recruitment. My external supervisors who were facilitating the MFT group were very helpful and proactive in approaching the families who attended the group and trying to ascertain their consent to participate in a focus group. Unfortunately, only four caregivers (from three of the five families who attended the group) consented to take part in a focus group, and none of the young people wanted to participate. It was perhaps unsurprising that the young people did not want to speak about their treatment experience as the reality of an eating disorder is that, in most cases, treatment is incongruent to their desires to lose weight. However, the perspectives of the young people were noticeably missing in this project. Additionally, at the outset of this project I hoped to gather follow-up data from families six months after the last follow-up session. Response was poor, and this did not end up being viable. My supervisors were very helpful in

discussing contingency options with me and helping to identify local clinicians who might participate in focus groups about their experience of facilitating MFT. Whilst this was not my initial plan, I think this element of the project bought in a useful, alternative perspective about the benefits and challenges of implementing MFT.

Challenges and personal learning. I enjoyed having the opportunity to do qualitative research and I think completing this project allowed me to understand the value of gathering rich and detailed information from participants about their experiences. One challenge of completing this project was that, as aforementioned, there have been many changes to children and young peoples' eating disorder services over the past few years. By the time I completed my project, the service that I was providing recommendations to actually looked quite different to when the project was initially proposed. This meant that I had to reframe my project slightly to make it actually relevant and useful to the service, and some of the recommendations I made might be difficult to translate into service-level changes.

Clinical Implications. A lot of the recommendations of my service improvement project were related to how MFT can be offered in newly developed children's services and highlighted how protected and dedicated time for this intervention is needed. In reality, services are currently stretched and resources limited, thus it will be interesting to see if the service are able to apply any of these recommendations.

The most important recommendation from this project was that MFT should be offered on a regular and routine basis, increasing the opportunity for young people to access this intervention when it is most effective for their recovery, and also enhancing clinician's skill and ability to facilitate this intervention. If the service was able to develop their treatment pathway for eating disorders such that it can do this, I think this would be an important improvement to clinical practice.

Case studies

I really enjoyed completing a case study on each placement. I think completing case studies enhanced my clinical practice by ensuring I was drawing really clear theory-practice links and regularly monitoring and evaluating intervention and measuring outcomes. I think my case studies developed over time and I developed a more critical stance of being able to question treatment recommendations and explore the research relevant to a particular clinical problem. Over time I became less focused on disorder-specific models and was able to develop skills in complex formulation and then draw on relevant research and evidence to develop the most appropriate

intervention plans for the clients I was working with. For example, my first case study was focused on a cognitive behavioural intervention for an adult with depression following a brain-injury, and I was primarily able to draw on guidelines for treating depression, with some adaptations to meet the clients' needs. In contrast, my final case study described a client with a complex eating disorder presentation, in which I had to supplement treatment guidelines with additional research regarding affect dysregulation and emotional trauma.

Aspirations for post-qualification research

Throughout training I have developed as a researcher and feel I have a much better awareness of the realities of conducting clinically relevant research. I have really learnt to value research which bridges the gap between theory and practice and can be usefully applied to improve clinical work. I want to continue engaging in research post-qualification and hope I can apply the skills I have learnt to improve the services I work in, as well as to inform theory and practice more widely.

I can foresee challenges of continuing research whilst undertaking a qualified clinical role but hope I can try to routinely build evaluation and outcome monitoring into my work. Furthermore, in the future I would like to establish links with regional training programmes and possibly collaborate with students on their research projects.

Acknowledgements

I would like to acknowledge the hard-work and support of my supervisors in helping me to accomplish the work presented in these portfolios. In particular, I would like to thank Dr Catherine Hamilton Giachritsis who supervised three of my projects and helped to keep a clear overview of my overall progress on each project. Her extensive knowledge and expertise were invaluable. Thank you also to Dr Rachel Hiller who was instrumental to the completion of my systematic review and provided ongoing input and knowledge throughout the process. Dr Catherine Butler played a key role in supervising my service improvement project and again I want to thank her for her insight and knowledge regarding qualitative research and systemic theory. This project was also externally supervised by Dr Lauren Russow and Dr Sarah Latham, and I am very grateful to them for developing the idea for this project in the first place, and for their expertise regarding eating disorders throughout the write-up of this project.

On a personal note, I also want to thank friends and family that have provided opportunities for the more enjoyable moments of the last three years, and who have helped me to keep life balanced and in perspective. I know they will all be very happy and proud to see me fulfil this journey. In particular, I want to dedicate this work to my grandmother. With her wisdom, curiosity, interest and investment in others, and infinite care and compassion, she reflects everything I want to be as a psychologist. I know she will be immensely proud of the work I have achieved over the last three years. And a final acknowledgement and thank you to Adam. Without his endless patience and kindness, his ability to keep me calm and focused, and his ongoing practical and personal support, the completion of this doctorate would not have been possible.

Appendices

Appendix 1. Systematic Review

Appendix 1.1 Trauma Violence and Abuse submission guidelines

TVA accepts comprehensive reviews of research or legal reviews that address any aspect of trauma, violence or abuse. Reviews must be based on a sufficient number of studies to justify synthesis. Reviewed literatures may come from the social or behavioral sciences or the law.

Each manuscript must:

- be prepared using APA style, and be **no longer than 40 double-spaced pages,** including references, tables, and figures;
- include an abstract of up to 250 words describing the topic of review, method of review, number of research studies meeting the criteria for review, criteria for inclusion, how research studies were identified, and major findings;
- begin with a clear description of the knowledge area that is being researched or reviewed and its relevance to understanding or dealing with trauma, violence, or abuse;
- provide a clear discussion of the limits of the knowledge that has been reviewed;
- include two summary tables: one of critical findings and the other listing implications of the review for practice, policy, and research;
- include a discussion of diversity as it applies to the reviewed research.*****

All manuscripts are peer reviewed and should be submitted with a letter indicating that the material has not been published elsewhere and is not under review at another publication. Manuscripts should be submitted electronically to http://mc.manuscriptcentral.com/tva where authors will be required to set up an online account on the SAGE Track system powered by ScholarOne. Inquiries may be made by email at jiv@u.washington.edu.

Authors who would like to refine the use of English in their manuscript might consider using the services of a professional English-language editing company. We highlight some of these companies at http://www.sagepub.com/journalgateway/engLang.htm. Please be aware that SAGE has no affiliation with these companies and makes no endorsement of them. An author's use of these services in no way guarantees that his or her submission will ultimately be accepted. Any arrangement an author enters into will be exclusively between the author and the particular company, and any costs incurred are the sole responsibility of the author.

Please note:

Reviews of issues related to trauma, violence, and/or abuse are not appropriate for *TVA* unless they are based on a comprehensive review of research. *TVA* does not publish case studies or reports on individual research studies.

TVA does not respond to author inquiries regarding the interest of the journal in their manuscript or on the suitability of their manuscript for *TVA*. The mission and parameters of *TVA* are clearly stated above and *TVA* assumes that authors are in the best position to know if their work is consistent with the aims and scope of the journal.

*****Journal policy on addressing diversity in manuscripts:

TVA requires all submissions to include a discussion of diversity as it applies to the reviewed research (e.g., nature of the sample, limitations of the measurement). The discussion should address the body of knowledge reviewed as it addresses or fails to address issues of diversity. Diversity concerns are not a criteria for publication but must be addressed. The nature of the discussion and amount of space devoted to the discussion is the responsibility of the author(s).

TVA understands diversity to include all aspects of human differences such as socioeconomic status, race, ethnicity, language, nationality, sex, gender identity, sexual orientation, religion, geography, ability, age, and culture.

Diversity as a core value embodies inclusiveness, mutual respect, and multiple perspectives and serves as a catalyst for expanding knowledge and practice with all human beings. While science seeks knowledge that can be generalized, it must appreciate that specific findings, while important in understanding the unique experiences of individuals or groups, are not necessarily applicable to all.

Manuscript Preparation

Manuscripts should be prepared using the APA Style Guide, and should be no longer than **40 double-spaced pages, including references, tables, and figures**. Text must be in 12-point Times New Roman font. Block quotes may be single-spaced. Manuscripts must include margins of 1 inch on all sides and pages must be numbered sequentially. All files should be in Word (.docx or .doc).

The manuscript should include five major sections (in this order): Title Page, Abstract, Main Body (blinded, with all author names and identifying information removed for peer review), References, and Author Biographies.

Sections in a manuscript may include the following (in this order): (1) Title page, (2) Abstract, (3) Keywords, (4) Text, (5) Notes, (6) References, (7) Tables, (8) Figures, (9) Appendices, and (10) Author Biographies.

1. Title page must be uploaded as a separate file. Please include the following:

Full article title

Acknowledgments and credits

Each author's complete name and institutional affiliation(s)

Grant numbers and/or funding information

Conflict of interests, if any

Corresponding author (name, address, phone/fax, e-mail)

2. Abstract. Copy and paste the abstract (150 to 250 words) into the space provided, headed by the full article title. Omit author names. Abstract must describe the topic of the review, method of review, number of research studies meeting the criteria for review, criteria for inclusion, how research studies were identified, and major findings.

3. Keywords. 5-7 keywords must be included in the manuscript.

4. Text. Begin text headed by the full article title. Text must be blinded, with all author names and other identifying information removed, for peer review.

a. Headings and Subheadings. Subheadings should indicate the organization of the content of the manuscript. Generally, three heading levels are sufficient to organize text.

Level 1: centered, boldface, upper & lowercase

Level 2: flush left, boldface, upper & lowercase

Level 3: indented, boldface, lowercase paragraph heading ending with a period

Level 4: indented, boldface, italicized, lowercase paragraph heading ending with a period

Level 5: indented, italicized, lowercase paragraph heading ending with a period

b. Citations. For each text citation there must be a corresponding citation in the reference list and for each reference list citation there must be a corresponding text citation. Each corresponding citation must have identical spelling and year. Each text citation must include at least two pieces of information: author(s) and year of publication. Following are some examples of text citations:

(i) Unknown Author: To cite works that do not have an author, cite the source by its title in the signal phrase or use the first word or two in the parentheses. For example, "The findings are based on the study of students learning to format research papers" ("Using XXX," 2001)

(ii) Authors with the Same Last Name: Use first initials with the last names to prevent confusion. For example, "L. Hughes, 2001; P. Hughes, 1998."

(iii) Two or More Works by the Same Author in the Same Year: For two sources by the same author in the same year, use lowercase letters (a, b, c) with the year to order

the entries in the reference list. The lower-case letters should follow the year in the in-text citation. For example, “Research by Freud (1981a) illustrated that…”

(iv) Personal Communication: For letters, e-mails, interviews, and other person-to-person communication, citation should include the communicator's name, the fact that it was personal communication, and the date of the communication. For example, E. Clark, personal communication, January 4, 2009. Do not include personal communication in the reference list.

(v) Unknown Author and Unknown Date: For citations with no author or date, use the title in the signal phrase or the first word or two of the title in the parentheses and use the abbreviation "n.d." (for "no date"). For example, “The study conducted by the students and research division discovered that students succeeded with tutoring” (Tutoring and APA, n.d.).

5. Notes. If explanatory notes are required for your manuscript, insert a number formatted in superscript following almost any punctuation mark. Footnote numbers should not follow dashes (—), and if they appear in a sentence in parentheses, the footnote number should be inserted within the parentheses. The footnotes should be added at the bottom of the page after the references. The word “Footnotes” should be centered at the top of the page.

6. References. Basic rules for the reference list:

- The reference list should be arranged in alphabetical order according to the authors’ last names.
- If there is more than one work by the same author, order them according to their publication date – oldest to newest (therefore a 2008 publication would appear before a 2009 publication).
- When listing multiple authors of a source use “&” instead of “and.”
- Capitalize only the first word of the title and of the subtitle, if there is one, and any proper names – i.e., only those words that are normally capitalized.
- Italicize the title of the book, the title of the journal/serial and the title of the web document.
- Manuscripts submitted to TVA should strictly follow the current APA style guide.
- Every citation in text must have the detailed reference in the Reference section.
- Every reference listed in the Reference section must be cited in text.
- Do not use “et al.” in the Reference list at the end; names of all authors of a publication should be listed there.

7. Tables. They should be structured properly. Each table must have a clear and concise title. When appropriate, use the title to explain an abbreviation parenthetically, for example, Comparison of Median Income of Adopted Children (AC) v. Foster Children (FC).

8. Figures. They should be numbered consecutively in the order in which they appear in the text and must include figure captions. Figures will appear in the published article in the order in which they are numbered initially. The figure resolution should be at least 300dpi at the time of submission.

IMPORTANT: PERMISSION - The author(s) are responsible for securing permission to reproduce all copyrighted figures or materials before they are published in TVA. A copy of the written permission must be included with the manuscript submission.

9. Appendices. They should be lettered to distinguish from numbered tables and figures. Include a descriptive title for each appendix (e.g., "Appendix A. Variable Names and Definitions"). Cross-check text for accuracy against appendices.

10. Author Biographies. Author(s) are required to send a 40-60 word biography for publication at the end of the article.

Appendix 1.2 Supplementary material

Overview of the cognitive model of PTSD (Ehlers and Clark, 2000). The cognitive model proposes that the way in which traumatic events are encoded, contextualised and stored in memory is central to the development of PTSD. Individuals with PTSD have difficulty intentionally recalling traumatic memories in a coherent form, but paradoxically experience intrusive memories about the trauma. They appraise, and seek to make sense of these intrusions, as well as of the trauma event itself and other post-trauma sequelae. If these appraisals give rise to a sense of threat, cognitive and behavioural coping strategies are employed in attempt to manage this threat. Particular coping responses can sustain a sense of threat, thus contributing to the maintenance of PTSD.

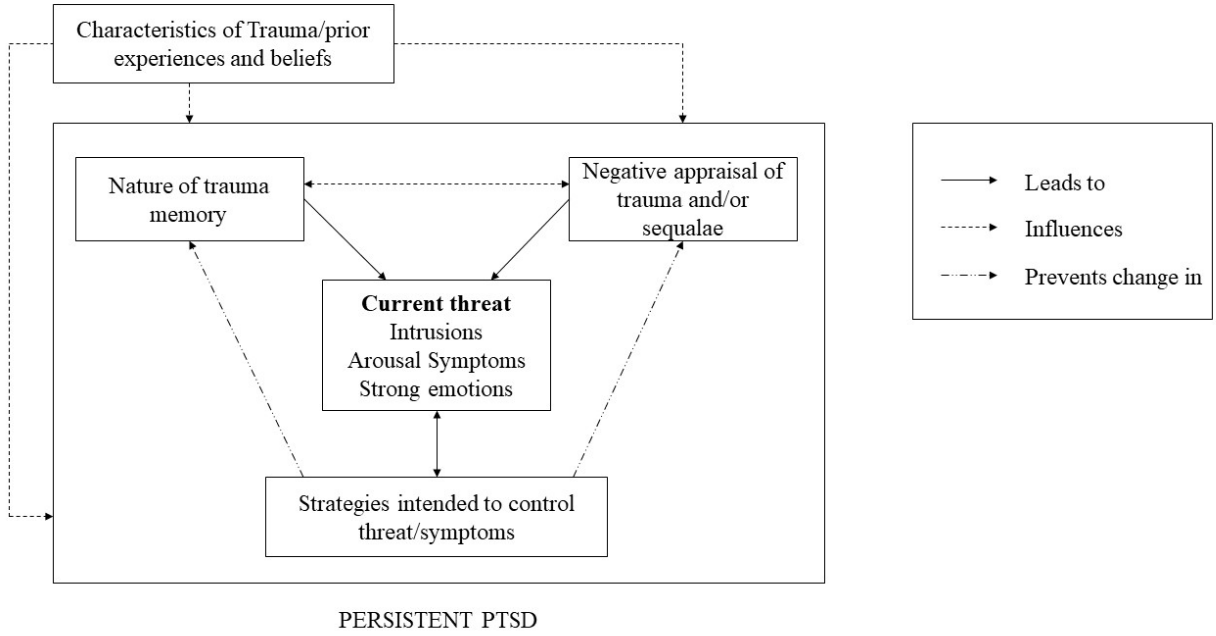


Figure 4.1. A cognitive model of posttraumatic stress disorder – Adapted from Ehlers and Clark (2000).

Complete search terms.

Table 4.1

Complete search strategy included in systematic review

Search components	Search terms
Participant Population	"maltreatment" OR "abuse" OR "neglect" or "maltreated" or "abused" or "neglected"
	"child" or "children" or "youth" or "young person" or "young people" or "adolescent" or "adolescence" or "childhood" or "teen" or "teenager" or "infant'
Outcomes	"PTSD" OR "post-traumatic stress disorder" OR "posttraumatic stress disorder" OR "complex PTSD" OR "stress disorders" OR "depression" OR "anxiety"
Psychological Processes	'memory" OR "trauma memory"
	"appraisal" OR "maladaptive appraisal" OR "cognitive processes" OR "cognitive process" OR "cognitive bias" OR "interpretative bias OR attribution"
	"coping behaviour" or "coping behaviour" or "coping strategies" or "coping skills" or "coping responses" or "avoidance" or "thought suppression" or "distraction" OR "safety behaviours" OR "safety behaviors" OR "selective attention" or "attentional bias" OR "rumination"

Table 4.2

Table of studies included in systematic review

Study *Country; Quality Assessment*[1]	Description of Sample *Sample size; age(mean); gender; abuse type*	Recruitment Setting	Psychological processes: Measures	Outcome Measure	Findings
1. Alix et al.(2017); Canada;41%	N=147; Age=15 (median), R=14-18;100% Female; SA	Treatment centres	ASSQ; AAI; WCQ	CITES-II	Associated with PTSD: Shame, self-blame, avoidance. Shame partially mediated self-blame and PTSD.
2. Bertó et al.(2017);Spain; 50%	N=47; Maltreated n=21; Age=10.8(3.2); 57.1% Female; PA, Neglect (SA n=3)	Mental health services	FACES database	ICD-11 Diagnosis MPSS-SR; BSI	Maltreated children with PTSD show attentional bias away from angry faces, towards sad faces.
3. Chaffin et al.(1997);USA; 94%	N=84; Age=9.75(1.7), R=7-12; 75% Female; SA	Treatment clinics; Support programs	KIDCOPE	CITES-R	Associated with hyperarousal symptoms: Internalised coping. Not associated with PTSD: Avoidant, angry, active/social coping.
4. Cohen & Mannarino (2000);USA; 78%	N=49; Age=11,R=7-15; 69% Female; SA	Victim advocacy programs; CPS; Police; Court; Mental health services	CAPS	TSCC	Associated with PTSD: Feeling different to peers, reduced interpersonal trust, self-blame for negative events, lower perceived credibility.

[1] Many included studies had different stated aims than ones investigated in the current review. Therefore, low ratings in relation to this review do not necessarily reflect overall quality of each individual paper.

5. Crouch et al.(1999);USA; 65%	N=97; Age=12.76(2.6), R=8-17; 86% Female; SA	Clinical services	CITES-R	CITES-R TSCC	Associated with PTSD: Self-blame/guilt, personal vulnerability, powerlessness, perceived negative reactions of others, dissociation. Not associated with PTSD: 'dangerous world' appraisal.
6. Daigneault et al. (2004); Canada; 28%	N=30; Age=15.5(1.4), R=13-17; 100% Female; SA (high rate additional abuse)	Youth protection center	MTRR-99	TSCC	Not associated with PTSD: authority over memory, integration memory and affect, meaning making.
7a. Daigneault, Hébert, & Tourigny, (2006); Canada; 77%	N=103; Age=14.6(1.2);100% Female; SA	Treatment centres	CAPS; CITES-R; WCQ	TSCC	Associated with PTSD: GASB. Not associated with PTSD:ASSB (when GASB and coping controlled), avoidant/approach coping.
7b. Daigneault, Tourigny, & Hébert(2006); Canada; 55%	N=103; Age=14.6(1.2); 100% Female; SA	Treatment centres	CAPS; CITES-R	TSCC	Associated with PTSD: GASB. Not associated with PTSD: ASSB (when GASB controlled). ASSB and PTSD completely mediated by GASB.
8a. de Haan et al. (2017); Germany; 44%	N=231; Age=12(2.5), R=8-17; 42.4% Female; Mixed maltreatment	Welfare services; Mental health services	CPTCI	PTSD-RI	Associated with PTSD: 'Permanently changed'/'fragile person in a scary world'.

8b. Múnzer, Ganser & Goldbeck (2017); Germany; 67%	N=200; Age=12.23(2.45), R=8-17; 44% Female; Mixed maltreatment	Welfare services; Mental health services	CPTCI	PTSD-RI	Associated with PTSD: 'Permanently changed'/'fragile person in a scary world'.
9. Elzy et al. (2013); Canada; 56%	N=44; Age=15,R=12-18; 100% Female; Mixed maltreatment	Residential Services	CRI-Y	TSR-A	Trauma exposure moderated avoidant coping but not approach coping on PTSD.
10a. Feiring et al.(1998);USA; 75%	N=142;8-11years=82;12-15 years =60; 76% Female; SA	CPS; SA medical clinics	Shame: developed for study; CASQ-R	CITES-R	Associated with PTSD: Shame. Not associated with PTSD:GASB
10b. Feiring, Taska, & Chen (2002); USA; 65%	N=137;8-11years=80; 12-15 years=57;74% Female; SA	CPS; SA medical clinics	Shame: developed for study; CASQ–R; AAI; Open-ended question	CITES-R	Associated with PTSD T1: Mother blame T1; Not associated with PTSD T1: Perpetrator blame T1/T2; Not associated with PTSD T2: Mother blame T1/T2, perpetrator blame T1/T2.
10c. Feiring, Taska, & Lewis (2002); USA; 69%	N=147; 8-11years=83; 12-15 years=64; 73% Female; SA	CPS; SA medical clinics	Shame: developed for study; CASQ–R; AAI	CITES-R	Associated with PTSD T2: shame T1/T2, GASB T2; Not associated with PTSD T2: GASB T1 and ASSB T1/T2. Changes in PTSD associated with improvements in ASSB and shame; not associated with improvements in GASB.

11. Freeman & Beck(2000); USA; 28%	N=53; SA PTSD n=20; No PTSD n=13; Age=13.8(1.7) /14.1 (2.0), R=11-17; 100% Female	Mental health services; Community	Modified Stroop Task	K-SADS; PTSD-RI; IES	No group differences on cognitive bias toward threat stimuli. Response latencies for word-stimuli and PTSD intrusion symptoms not associated.
12. Gauthier-Duchesne et al. (2017); Canada; 81%	N=447; Age=8.9(2.05), R=6-12; 71% Female; SA	SA Services	CITES-II	CITES-II	Associated with PTSD: Guilt.
13a. Kaplow et al (2005); USA; 67%	N=156; Age=10.7(1.8), R=7.92-13.92; 83% Female; SA	Treatment facilities	TSCC; Interview	CBCL	Associated with PTSD: avoidance, dissociation.
13b. Shapiro et al. (2012); USA; 64%	N=156;Age=10.7(1.8), R=8-13; 83% Female; SA T2 analysis n = 47	Treatment facilities	TSCC; Interview	CBCL	Associated with PTSD T2: Avoidant coping T1. Not associated with PTSD T2: Positive affective/expressive coping T1.
14. Kaur & Kearney (2013); USA; 50%	N=145; Age=14.5(1.6), R=11-17; 54% Female; Mixed maltreatment	Family services (All in residential care)	PTCI; A-DES	CPTSD–I	Associated with PTSD: Negative cognitions about self/world/self-blame, dissociation.
15. Kaur & Kearney (2015); USA; 55%	N=160; Age=13.27(2.79), R=11-17; 57% Female; Mixed Maltreatment	Family services (all in protective custody)	PTCI; A-DES	CPTSD–I	Associated with PTSD: Negative cognitions about world.

16. Kletter et al. (2009); USA; 89%	N=87; Age=11.7(2.4), R=5.4–16.7; 44% Female; Mixed maltreatment	Social Services; mental health clinics	CAPS-CA	CAPS-CA	Associated with PTSD: Guilt over acts, derealisation. Not associated with PTSD: Survivor guilt,shame,depersonalisation.
17. Kolko et al. (2002); USA; 61%	N=47; Age=12.0(2.8); 62% Female; PA, SA	Youth services	CASP	TSCC; CAPS-C	Associated with PTSD: Perceived victimization, perceived victim consequences. Not associated with PTSD:Abusers negative intentions/negative feelings towards abuser/consequences for abuser.
18. Lam (2015); Hong Kong; 78%	Disclosed abuse n=74; Age=14.75(.96), R=13-16; 51% Female; SA	Secondary schools	CAPS	CRIES	Not associated with PTSD:Feeling different to peers/reduced interpersonal trust/self-blame for negative events/lower perceived credibility.
19. Mannarino et al. (2012); USA; 77%	N=158; Age=7.6(2.07), R=4-11; 62% Female; SA	Treatment sites	The Shame Questionnaire	K-SADS	Pre-treatment levels of shame not associated with PTSD posttreatment.
20. Ogle et al. (2013); USA; 39%	N=98; Age=15.12(0.95), R=14-17; 86% Female; SA	Treatment Centres; medical clinics; internet; newspapers	The AMI	CPSS	Associated with PTSD: Dissociation. Not associated with PTSD: Autobiographical memory specificity.

21. Pittenger et al (2016); USA; 40%	N=166; SA Children n=101; Age=10.1(1.7), R=7-14; 71% Female Adolescents n=65; Mean age =14.7(1.5), R=11-18; 92% Female	Therapy groups	CITES-R; PSAES-Y	CITES-R	Associated with PTSD: self-blame/guilt, expectations of the impact of abuse. Not associated with PTSD: Powerlessness.
22. Ross & Kearney (2017); USA; 65%	N=400; Age=13.72(2.39), R=7–18; 59% Female; Mixed maltreatment	Family services (all removed from caregiver)	A-DES; PTCI	CPTSD-I	Post-traumatic cognitions differentiated between maltreated individuals with/without re-experiencing symptoms. Depersonalisation/derealisation differentiated between maltreated individuals with/without PTSD avoidance symptoms. Negative cognitions about self, dissociation differentiated between maltreated individuals with/without PTSD hyperarousal symptoms.
23. Runyon & Kenny (2002); USA; 72%	N=98; PA n=67 Age=11.72(2.77), R=8-17; 48.5% Female SA n=31; Age=12.90(2.84), R=8-17; 87.1% Female	Treatment Centres	CASQ	PTSD-RI	GASB associated with PTSD in SA sample only.

24. Sharma-Patel et al. (2014); USA; 89%	N=128; Age=12 (3.24), R=6–17.9; 87% Female; PA, SA	Outpatient clinic	PERCEIVE	CPSS	High self/perpetrator blame associated with > PTSD severity than i) high self-blame ii) low self/ perpetrator blame iii) moderate perpetrator/low self-blame.
25. Sharma-Patel & Brown (2016); USA; 36%	N=118; Age=11.02,R=4-17; 75% Female; Mixed maltreatment	Treatment centres	PERCEIVE	CPSS	Self-blame did not mediate PTSD symptoms across TF-CBT.
26. Shenk et al. (2014); USA; 82%	N=110; Age maltreatment group = 16.78(1.12), R=14-19; 100% Female; Mixed Maltreatment	CPS, primary care	AAQ	CTI	Associated with PTSD: Experiential avoidance
27. Spaccarelli (1995); USA; 50%	N=48; Age=14 (median), R=11-18; 100% Female; SA	Therapy Services	NASAS	Scale from TSCC and IES	Associated with PTSD: Evaluation of self & others/perceptions of harm to self & others/loss of resources/criticism of others.
28. Srinivas et al. (2015); USA; 83%	N=129; Age=16.5(1.6), R=13–20, 92% ≤18; 100% Female; Mixed maltreatment	Welfare services	TAQ[2]	TSCC	Associated with PTSD: Shame, Alienation. Not associated with PTSD: ASSB.

[2] Not all participants responded to the TAQ in relation to their maltreatment. TAQ trauma type was controlled for in the analysis, but there was no distinction between loss and neglect

29. Wolfe, Gentile & Wolfe(1989); Canada; 70%	N=71; Age=9.9(3.3), R=5-16; 88.2% Female; SA	CPS	CITES-R; KASTAN;	CBCL	Not associated with PTSD: ASSB, GASB.
30. Wolfe et al. (1991); Canada; 40%	N=61(FS sample); Age=11.6(2.8), R=8-16; 86.9% Female N=76(Court Sample); Age=12.5(2.4),R=8-17;74% Female SA- high rate mixed maltreatment	Family Services (FS sample) Victim-witness court	KASTAN; CITES	CITES; CBCL-PTSD	Overall PTSD not associated with: ASSB, vulnerability, empowerment, dangerous world, negative reactions of others, GASB. Associated with intrusive symptoms: ASSB, negative reactions of others, vulnerability. Avoidant symptoms associated with: Vulnerability. Not associated with PTSD symptoms: Empowerment, dangerous world, GASB.
31. Wolfe et al. (1994); Canada; 72%	N=90;Age=12.4; 77% Female; SA	Police; CPS	CITES	Checklist of PTSD symptoms ;CITES	Associated with PTSD: Guilt. Not associated with PTSD: ASSB.

CPS, Child Protective Services. SA, Child Sexual Abuse. PA, Child Physical Abuse. ASSQ, Abuse Specific Shame Questionnaire; NASAS, Negative Appraisals of Sexual Abuse Scale; TSCC, Trauma Symptom Checklist for Children; CITES-R, Children's Impact of Traumatic Events Scale – Revised; CAPS, Children's attributions and perceptions scale; WCQ, Ways of Coping Questionnaire; CRI-Y, Coping Responses Inventory – Youth Form; TSR-A, Trauma Symptom Report – Adolescents; CASQ-R, Children's Attributional Style Questionnaire—Revised; AAI, Abuse Attribution Inventory; K-SADS, Schedule for Affective Disorders and Schizophrenia (Child Version); AMI, Autobiographical Memory Interview; PTSD-RI, PTSD Reaction Index; IES, Impact of Events Scale; CBCL, Child Behaviour Checklist; C/PTCI Child/Post Traumatic Cognitions Inventory; CPTSD-I, The Children's PTSD Inventory, A-DES, The Adolescent Dissociative Experiences Scale; CAPS-C/CA, Clinician-Administered PTSD Scale for children/Child and Adolescent Version; CASP, Children's Abuse-Specific Perceptions; CRIES, Children's revised impact of event scale; CPSS, Child Post- Traumatic Stress Disorder Symptom Scale; CTI, Comprehensive trauma interview; PERCEIVE, Perceptions of

Children Exposed to Interpersonal Violence; AAQ, Acceptance and Action Questionnaire; TAQ, Trauma appraisal questionnaire; KASTAN, Attribution style questionnaire for children; MPSS-SR, Modified PTSD Symptom Scale-Self-Report Severity; BSI, Brief Symptom Inventory; ICD-11, International Classification of Disease 11; FACES database; MTRR-99, Multidimensional Trauma Recovery and Resiliency Interview and scoring package; The Shame Questionnaire; PSAES-Y, Post Sexual Abuse Expectations Scale–Youth; GASB, General attributions of self-blame; ASSB Abuse-specific attributions of self-blame. TF-CBT; Trauma focused CBT.

Supplementary References.

Achenbach, T., & Edelbrock, C. S. (1983). *Manual for the Child Behaviour Checklist and Child Behavior Profile.* Burlington: University of Vermont.

Armstrong, J. G., Putnam, F. W., Carlson, E. B., Libero, D. Z., & Smith, S. R. (1997). Development and validation of a measure of adolescent dissociation: The Adolescent Dissociative Experiences Scale. *Journal of Nervous and Mental Disease, 185*, 491–497.

Bouchard, G., Sabourin, S., Lussier, Y., Richer, C., & Wright, J. (1995). Nature des stratégies d'adaptation au sein des relations conjugales: présentation d'une version abrégée du Ways of Coping Questionnaire. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, *27*(3), 371.

Briere, J. (1996). *Trauma symptom checklist for children.* Odessa, FL: Psychological Assessment Resources.

Brown, E. J. (2000). Perceptions of Children Exposed to Interpersonal Violence (PERCEIVE). *Unpublished measure. Queens, NY: Department of Psychology, St. John's University*.

Briere, J., Elliott, D. M., Harris, K., & Cotman, A. (1995). Trauma Symptom Inventory: psychometrics and association with childhood and adult trauma in clinical samples. *Journal of Interpersonal Violence, 10*, 387–401.

Cloitre, M., Gavert, D. W., Brewin, C. R., Bryant, R. A., & Maercker, A. (2013). Evidence for proposed ICD-11 PTSD and complex PTSD: A latent profile analysis. *European Journal of Psychotraumatology, 15*(4), 20706.

DePrince, A. P., Zurbriggen, E. L., Chu, A. T., & Smart, L. (2010). Development of the Trauma Appraisal Questionnaire. *Journal of Aggression, Maltreatment &Trauma, 19*(3), 275–299.

Derogatis, L. R., & Melisaratos, N. (1983). The brief symptom inventory: An introductory report. *Psychological Medicine, 13,* 595–605.

Ebner, N. C., Riediger, M., & Lindenberger, U. (2010). FACES-a database of facial expressions on young, middle-aged: and older women and men: Development and validation. *Behavior Research Methods, 42*, 351–362.

Falsetti, S. A., Resnick, H. S., Resick, P. A., & Kilpatrick, D. G. (1993). The modified PTSD symptom scale: A brief self-report measure of posttraumatic stress disorder. *The Behavioral Therapist, 16*, 161–162.

Foa, E. B., Ehlers, A., Clark, D. M., Tolin, D. F., & Orsillo, S. M. (1999). The Posttraumatic Cognitions Inventory (PTCI): Development and validation. *Psychological Assessment, 11,* 303–314.

Foa, E. B., Johnson, K., Feeny, N. C., & Treadwell, K. (2001). The Child PTSD Symptom Scale (CPSS): A preliminary examination of its psychometric properties. *Journal of Clinical Child Psychology, 30,* 376–384.

Harvey, M. R., Westen, D., Lebowitz, L., Saunders, E., & Harney, P. (1998). *Multidimensional Trauma Recovery and Resiliency Scale: 1998-1999 Clinical Rating Form with Handscoring Instructions.* Unpublished manuscript Cambridge, MA: The Cambridge Hospital Victims of Violence Program.

Hayes, S. C., Strosahl, K., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., et al. (2004). Measuring experiential avoidance: A preliminary test of a working model. *Psychological Record, 54,* 553–578.

Horowitz, M., Wilner, N., & Alvarez, W. (1979). Impact of Event Scale: A measure of subjective distress. *Psychosomatic Medicine, 41*, 209–218.

Kaslow, N. J., Tannenbaum, R. L., & Seligman, M. E. P. (1978). *The KASTAN-R: A Children's Attributional Style Questionnaire (KASTAN-R- CASQ)*. Unpublished manuscript, University of Pennsylvania.

Kopelman, M. D., Wilson, B. A., & Baddeley, A. D. (1989). The Autobiographical Memory Interview: A new assessment of autobiographical and personal semantic memory in amnesic patients. *Journal of Clinical and Experimental Neuropsychology, 11,* 724–744.

Mannarino, A. P., Cohen, J. A., & Berman, S. R. (1994). The children's attributions and perceptions scale: A new measure of sexual abuse-related factors. *Journal of Clinical Child Psychology*, *23*(2), 204–211.

Meiser-Stedman, R., Smith, P., Bryant, R., Salmon, K., Yule, W., Dalgleish, T., & Nixon R. D. V. (2009). Development and validation of the Child Post-Traumatic Cognitions Inventory (CPTCI). *Journal of Child Psychology and Psychiatry, 50*, 432–40.

Moos, R. (1993). *Coping responses inventory: Professional manual*. Odessa: Psychological Assessment Resources, Inc.

Nader, K. O., Kriegler, J. A., Blake, D. D., & Pynoos, R. S. (1994). *Clinician-Administered PTSD Scale for Children (CAPS-C), current and lifetime diagnosis version*. Unpublished instrument, Aliso Viejo, CA.

Nader, K.O., Kriegler, J.A., Blake,D.D., Pynoos, R.S., Newman, E., & Weather, F.W. (1996). *Clinician administered PTSD scale, child and adolescent version*. White River Junction, VT: National Center for PTSD.

Orvaschel, H. (1995). Schedule for Affective Disorders and Schizophrenia for School-Age Children, Epidemiologic Version-5, Kiddie SADS–E (K–SADS–E). Fort Lauderdale, FL: Nova Southeastern University, Center for Psychological Studies.

Saigh, P. A. (1998). *Children's PTSD Inventory (DSM–IV version)*. New York, NY: Author.

Spirito, A., Stark, L. J., & Williams, C. (1988). Development of a brief checklist to assess coping in pediatric patients. *Journal of Pediatric Psychology, 13,* 555-574.

Steinberg, A. M., Brymer, M. J., Decker, K. B., & Pynoos, R. S. (2004). The University of California at Los Angeles Post-Traumatic Stress Disorder Reaction Index. *Current Psychiatry Reports, 6,* 96–100.

Thompson, M., Kaslow, N. J., Weiss, B., & Nolen-Hoeksema, S. (1998). Children's Attributional Style Questionnaire—Revised: Psychometric examination. *Psychological Assessment, 10*, 166–170.

Wolfe, V. V. (2002). *Children's Impact of Traumatic Events Scale-II.* Unpublished assessment instrument, London, ON: Child and Adolescent Centre, London Health Sciences Centre.

Wolfe, V. V., Wolfe, D. A., Gentile, C., & LaRose, L. (1986). *The children's impact of traumatic events scale (CITES)*. Unpublished manuscript, Available from V. Wolfe, Dept. of Pediatric Psychology, Children's Hospital of Western Ontario, London, Ontario, Canada.

Appendix 2. Service Improvement Project

Appendix 2.1 Journal of systemic therapies submission guidelines

JST welcomes articles addressing the practice and research of systemic, postmodern, and poststructuralist therapies. Please e-mail materials for review to the appropriate address below. Please do not submit elsewhere simultaneously. All general submissions, special section articles, training and supervision, and research articles should be no more than 20 pages (including abstract and references and excluding title page, tables, and figures) in 12-point font, double-spaced, with references following the standard style of the American Psychological Association (Publication Manual of the American Psychological Association, 6th ed.). Articles should include an abstract.

Tables should be submitted in Excel. Tables formatted in Microsoft Word's Table function are also acceptable. (Tables should not be submitted using tabs, returns, or spaces as formatting tools.) Figures must be submitted separately as graphic files (in order of preference: tif, eps, jpg, bmp, gif; note that PowerPoint is not acceptable) in the highest possible resolution. Figure caption text should be included in the article's Microsoft Word file. All figures must be readable in black and white.

GENERAL SUBMISSIONS: JST is interested in publishing articles by systemically and postmodern oriented practitioners, whether they are seeing clients, teaching students, supervising therapists, or consulting with colleagues about their craft. Send articles about your new or expanded ideas, as well as your clinical innovations, to [redacted]

SPECIAL SECTIONS: Periodically JST publishes a special section (three or four articles on a theme). Anyone with a good idea please contact either Jim Hibel at [redacted] or Anne Rambo at [redacted]

RESEARCH ARTICLES: To help bring researchers and practitioners into conversation, we publish clinically relevant, reader-friendly research articles. We welcome submissions that describe nontraditional studies or that offer nontraditional narratives of traditional studies. Contact Jeff Carter for detailed suggestions about how to compose research-related manuscripts. E-mail research articles to Jeff Carter, Ph.D., Research Editor, at [redacted] and c.c. [redacted].

TRAINING AND SUPERVISION ARTICLES: We publish articles highlighting innovations in training and supervision of systemically and postmodern oriented clinicians. E-mail Jim Duvall at [redacted] and c.c. [redacted].

INTERVIEWS: Interviews with prominent theorist and practitioners contribute depth and scope to our knowledge of the current work. If you have someone that you would like to interview or someone that you think would be timely for us to interview contact Caroline Tremblay at [redacted] and c.c. [redacted].

Appendix 2.2 Additional study based on service improvement project

Change mechanisms of Multi-Family Therapy: a unique addition to the treatment pathway for young people with Anorexia Nervosa

Hannah Wiseman

Doctorate in Clinical Psychology, 10 West Level 3, University of Bath, Claverton Down, Bath, BA2 7AY, United Kingdom
h.wiseman@bath.ac.uk

May, 2018

Supervisors: Catherine Butler, Sarah Latham, and Lauren Russow

Submitted to: Journal of Systemic therapies

Abstract

Offering timely and effective intervention to young people with Anorexia Nervosa (AN) is a current priority within our national healthcare services (NHS). Treatment guidelines recommend that services should consider including multi-family therapy (MFT) in treatment pathways for young people with AN. MFT is an effective intervention valued by service-users, but there is limited understanding of the unique mechanisms of this intervention that promote recovery-focused change. This study conducted focus groups with carers who attended a pilot MFT group and clinicians who facilitated this group, to gather their perspectives of how MFT creates change and adds to existing treatment pathways for AN. Carers and therapists reported that the MFT programme, as well as therapeutic processes within MFT, creates change in family systems and in relationships between families and services, and allows shared meanings of AN to be developed. The unique aspect of attending an intervention with other families with similar experiences enhances parental confidence, shifts feelings of guilt and blame, promotes hope, and challenges the way families understand and manage AN.

Anorexia Nervosa (AN) is a serious mental health disorder, with significant psychological and physical concerns. The majority of eating disorders (ED) begin before adulthood (Bailey et al., 2014), with some studies estimating up to 75% of cases are identified before the age of 22 (Hudson, Hiripi, Pope, & Kessler, 2007; Oakley Browne, Wells, Scott, & Mcgee, 2006). Individuals with AN are at increased risk of mortality, disability and psychological comorbidities (Bailey et al., 2014). Individuals treated at a younger age have a better prognosis, shorter illness duration and increased rates of recovery (Hay, 2015), thus there is an impetus to provide timely, effective intervention to young people with AN.

In the United Kingdom (UK) young people with ED should be offered treatment in line with National Institute of Clinical Excellence guidelines (NICE, 2014). A central development within children and young person's mental health services is the implementation of a transformation programme - Children and Young Person's Improving Access to Psychological Therapy, CYP-IAPT. CYP-IAPT aims to improve access to evidence-based therapies for young people, by providing training to clinicians in a standardised curriculum of NICE recommended interventions (NHS England, 2015). There is a CYP-IAPT training stream related to interventions for ED.

NICE recommends that all young people with AN should be offered family therapy (NICE, 2017). CYP-IAPT ED training currently includes family based treatment (FBT, Lock & Le Grange, 2015), systemic therapy for anorexia/bulimia (SFT-AN/SFT-BN), and Multi Family Therapy (MFT, Eisler, Lock, & Le Grange, 2010). FBT and SFT-AN/BN are similar models and in practice clinicians will likely draw on both manuals. Across the UK, most services for young people with ED routinely offer individual family therapy. However, MFT is a more recent development, and is not yet embedded into treatment pathways in the same way as individual family therapies.

Multi-Family Therapy

MFT for ED was initially developed to address the need for intensive intervention, without relying on hospital admission. Multiple families attend an intensive four-day group programme, and subsequent follow-up sessions across several months. Research has shown that MFT can improve young people's insight into their illness and their motivation to recover (Voriadaki, Simic, Espie, & Eisler, 2015) and can positively influence symptomology and rates of recovery (Scholz & Asen, 2001). Both carers and young people report greater satisfaction with MFT than with inpatient care (Scholz, Rix, Scholz, Gantchev, & Thömke, 2005). Inpatient treatment has been

criticised for promoting a message that carers are unable to look after their child (Dare & Eisler, 2000). In contrast, carers attending MFT report increased self-efficacy in supporting their young person (Voriadaki, Simic, Espie, & Eisler, 2015). In addition, MFT reportedly costs 25% of the average cost of inpatient care (Scholz et al. 2005). Furthermore, carers report that MFT allows them to share experiences with other families, which sets it apart from outpatient individual family interventions (Le Grange & Eisler, 2008; Le Grange & Lock, 2011). A recent study demonstrated that significantly more individuals who received SFT with MFT showed clinical improvements in regards to weight, ED psychopathology and mood than those who attended SFT alone (Eisler, Simic, Hodsoll, et al., 2016).

All family-based treatment approaches for young people with ED are guided by an underlying understanding that families become organised around a young persons' ED, and patterns and interactions develop which maintain their difficulties. These include: family relationships and interactions becoming defined by the ED; a narrowed time-frame of the here-and-now; a lack of flexibility in family patterns; the amplification of certain aspects of family functioning (e.g. two family members becoming increasingly enmeshed); disruptions to family life-cycle needs; and a sense of helplessness. There is a general consensus that family treatment models should aim to identify and change these patterns by facilitating change in: perceptions or feelings of an individual member of a system; relationships within a system; and shared meanings (Eisler, Simic, Blessitt, et al., 2016). There is limited understanding of how MFT creates these changes in a way that is unique from other treatments. In comparison to individual family interventions, there is a sense that MFT allows families to: broaden their time-frames by seeing other families at different phases of recovery; try out new things by understanding how others overcame problems; and gain a sense of agency over the illness by problem-solving with other families rather than relying on experts for solutions (Eisler, 2005). There is some understanding that these mechanisms might underlie the positive outcomes seen in MFT, yet gaps in this knowledge remain.

In line with national goals to improve ED services, CYP-IAPT training was rolled out to a newly developed children and young peoples community eating disorder service (CEDS-CYP) in the south-west of England. Prior to this, this service routinely offered SFT for young people with AN but did not offer MFT. Following CYP-IAPT training, a MFT for AN group was piloted within this region. This study was initially proposed to evaluate the implementation of this intervention and to understand the perspectives of carers and clinicians about aspects of MFT they felt were helpful to

recovery-focused change. However, the data gathered can be usefully considered in a wider context. It was therefore a secondary aim of this study to improve general understanding of the unique change mechanisms of MFT and of how this intervention should be offered alongside existing interventions.

Method

The group

The pilot MFT group ran from November 2015 until June 2016 and included four intensive days and six follow-up sessions. It was facilitated by two clinical psychologists and two family therapists. Five families enrolled, and all young people were females diagnosed with AN. They had a mean age of 14.6 (range 14-16 years). Three individuals were recruited from inpatient services, and two from outpatient services. Three individuals attended MFT with their mother and father, one with her grandmother, and one with her mother, stepfather, and father alternately. All families received SFT alongside MFT.

Procedure

This study received ethical approval from the University of Bath. It also received site-specific approval from the research and development teams at each participating CEDS-CYP. All participants provided written consent to take part.

Both quantitative and qualitative methods were employed in this study. However, only qualitative aspects of this study will be described and reported here, to focus on the rich information provided by families and staff. The quantitative aspects of this study are reported separately and were submitted for publication at the same time as this article.

Carers focus group. Following the MFT intervention, all attendees were approached by group facilitators and provided with written information about this study. The young people all declined from participating in a focus group, however they consented for their written feedback about each group session to be included in this study.

Four carers, from three of the families enrolled in the MFT group, consented to take part in a focus group. This included two fathers, one mother, and one grandmother. The focus group followed a semi-structured interview schedule and questions related to the carer's experiences of MFT and how it compared to other interventions received.

Therapist interviews. Three semi-structured interviews were conducted with clinicians involved in facilitating MFT. The first interview was with clinicians who facilitated the pilot MFT group that is the focus of this study (site 1). Two other

interviews were held with clinicians from more established CEDS-CYPs in neighbouring regions (sites 2 and 3). These services routinely offer MFT, and the clinicians are increasingly familiar with facilitating this intervention. Each interview consisted of one interviewer (the main researcher) and two interviewees (clinicians). Clinicians were either clinical psychologists or family therapists who were identified through the regional CYP-IAPT training network. They were interviewed with the aim of gathering richer information about MFT processes and subsequently informing future MFT groups in the region. However, the data generated can inform practice across wider services and contribute to the knowledge base of what influences the effectiveness of MFT more generally.

The carers focus group and the therapist interviews were both conducted by the main researcher, who was not involved in facilitating the MFT group. The main researcher did not have any prior knowledge of the participants and it was hoped that this would allow for open and honest discussion of carers and therapists experiences. The focus group and the interviews were all audio-recorded and transcribed by the main researcher.

Results

This study used thematic analysis to identify, understand and report patterns in the data (Braun and Clarke, 2006). Thematic analysis identifies both inductive codes, which are grounded within the content of the data and also more theoretically driven codes, which are informed by the researcher's knowledge of relevant research and theory (Joffe & Elsey, 2014). The researcher immersed themselves in the data and moved between analytical phases of familiarising themselves with the data, searching for codes and describing themes, before deciding on final themes (Nowell, Norris, White, & Moules, 2017). A second researcher reviewed the raw data and the initial codes and themes described by the first researcher and agreed with identified themes. The first researcher was aware that they approached data analysis with pre-existing ideas about change processes and systemic factors relevant to AN, but also tried to be aware of inductive codes that were grounded within the data.

Theme 1: Unique mechanisms of MFT for creating recovery-focused change

Therapists and carers identified key mechanisms within MFT that they believed promoted change. These were: the experience of being with other families; family bonding; shifting guilt and shame; the intensity of MFT; acknowledgement of AN; improved therapeutic relationship; thinking about AN differently; and parental confidence (see figure 4.2).

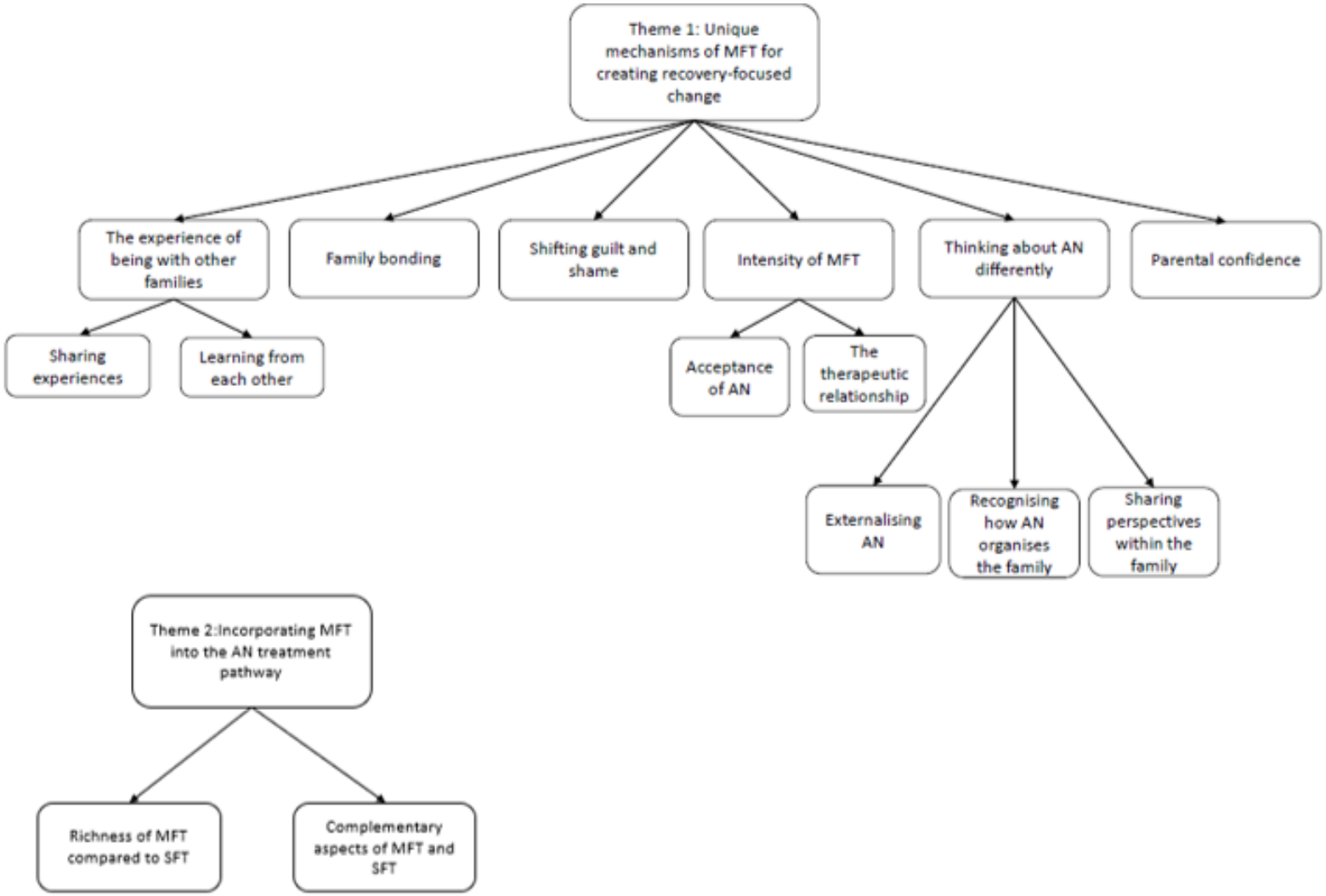


Figure 4.2 Unique mechanisms of MFT for creating recovery-focused change

a) The experience of being with other families

Sharing experiences: Families emphasised one of the most important aspects of MFT was the opportunity to learn from one another, challenge each other, problem-solve together, and share experiences. Carers and therapists recognised how unique this was in comparison to other interventions.

Carer: "I'm sure people will realise 'Oh okay we are not alone, there are lots of people, all sorts of different families going through this stuff' and it really does help to share it, well it certainly did for us. And that was really the benefit of the experience."

Carer: "It was really helpful and different from anything else that we had…mainly because it was the only time we were in a position to discuss our experiences with other families."

Therapists Site 3: "I think just being in a group with other families going through the same stuff has a really powerful kind of message to them of 'they are not on their own', and also that they can do it, almost because everyone else is doing it."

There was less understanding of whether young people valued sharing experiences with others, and their perspectives are noticeably missing. Some therapists believed that despite reluctance to engage, young people do appreciate the opportunity to meet others who share their difficulties.

Therapists Site 2: "the young people, whilst they weren't expressing that [they found it helpful], I think consistently they all wrote down how helpful - even if they hadn't talked much - the time together had been."

Therapists Site 2: "I think one [benefit] is about being around other young people and just having that sense of 'I'm not the only that can't eat a sandwich today'…that kind of thing is helpful."

Learning from each other: Being in the MFT group also allowed families to learn from each other. Therapists recognised that the messages and ideas shared amongst group attendees were experienced differently, and possibly more powerfully, than ideas and knowledge provided by facilitators. Additionally, by problem-solving together and learning from one another, carers expressed an increased sense of agency and reduced feelings of helplessness, which are both catalysts for change.

Therapists Site 2: "I think that was the other strength of using parents to discuss… challenging each other about some stuff was incredibly powerful. I think because it comes from such a different place."

Carers: "If you are put in this multi-family situation you get exposed to other ideas and through talking you might come up with things that are outside the pattern that you are used so you…get some impetus to do something different or try something out."

b) Family bonding. As well as bonding with other families, one carer suggested that MFT allowed a space for group attendees to bond within their individual families, which they felt was important. Therapists acknowledged that they saw a shift in the way family members interacted with each other during the course of MFT, and a change in how the eating disorder was managed as a family. Systemic approaches acknowledge that changes in relationships and interactions within a family are central to change.

Carers: "And there was time to do things as a family…so that develops a sort of sense of camaraderie perhaps".

Therapists site 3: "Even if [MFT] doesn't have huge behavioural differences at that point, so it might not change the eating, the whole sort of warmth between people can change and the way that people are managing [the AN], definitely."

c) Shifting guilt and shame. Parents of a child with an ED often feel a sense of guilt about their child's difficulties. Research suggests this sense of guilt can be perpetuated in interactions with health care professionals, especially when young people are hospitalised and the responsibility of their care is temporarily transferred to hospital staff (McMaster, Beale, Hillege, & Nagy, 2004). One carer explained how MFT helped to reduce this sense of guilt, as it allowed them to recognise other carers in the same situation as themselves. Similarly, one therapist thought MFT reduced young peoples' feelings of shame as they encountered others with similar difficulties. Systemic approaches emphasise that when an individual member of a system experiences change in their feelings or perceptions, this can contribute to wider change within the family. Self-blame can use up a lot of parents' and young peoples' energy, leaving little time and space for them to do things that might support recovery. Reducing self-blame may free families up to start accessing their resources in a much more helpful and recovery focused way, e.g. by allowing them to trust themselves to try something new, which

might work and then lead them to feel more empowered to make further positive changes.

Carers: "I had been feeling quite guilty that… I had let X get into that situation…and so it was actually really comforting to...you sort of think 'well what's wrong with me? I am not normal I am not a good mother' and you really need to meet other people who are good parents and you can see they're good parents and the same things happened to them."

Therapist Site 2: "We asked them to prepare something to show to the group around their journey through the illness…and by presenting that, other young people can see 'actually that bit's similar to me'…'other people have these troubles, I'm not alone'…So I think that tackles some sense of shame and blame."

d) Intensity of MFT. The intensive nature of the MFT programme was highlighted as being central to its effectiveness. The intensity allowed therapists to gain a greater understanding of each family's individual situation, encouraged families to accept and acknowledge ED as an illness, and enhanced the therapeutic relationship between families and professionals. This intense focus probably also allows the ED treatment to become the families highest priority for a period of time.

Therapist site 2: "I think in terms of what was really useful it is that intensity because you see people for an hour and you push and you kind of, you might phone them in the week, but actually that whole day for four days and those micro interactions around meals...being able to really see that in action was really powerful."

Acceptance of AN: One aim of most ED interventions is for families to acknowledge the ED and accept that it is a problem for which they need to access help. Therapists felt that the intensity of MFT enabled this acceptance to happen quickly and effectively. By acknowledging that the ED is a problem, families can experience both cognitive change in how they understand the illness, as well as behavioural change in how they manage it.

Therapists site 3: "You can do an hour a week but then they go home. If you are with them for seven hours a day for four days, it's sort of …in their face all the time and I think that's really powerful, really important."

Therapist site 1: "That was the whole fundamental premise of what we were there to talk about in an intensive way with their families -- they couldn't really hide

again, they couldn't hide behind saying it wasn't an issue because that's why they were there."

Therapeutic relationship: Families with a young person with ED are typically involved with a range of professionals and services, and the intensity of MFT was thought to improve the therapeutic relationships within this wider system. Trust is central to this and by spending this extended time together, family members have many more opportunities to build trust in the therapeutic team, particularly because the therapy team support them during very difficult times such as meals. This can also happen when a family sees therapists manage the difficulties of other families, for example if this is done with respect, kindness and transparency.

Therapists site 3: "I do think it helps build that therapeutic relationship with the families...I think it really boosts it because you've been on that journey with them… I think it just intensifies it and you know, okay this team is here to support us through thick and thin."

Therapist Site 2: "[The] therapeutic relationship is massive… the fact that we were there for meal times for four days… and checking in what they had done in the evening...they got a real sense that we were committed to helping them get better I think."

e) Thinking about the eating disorder differently. MFT employs systemic interventions to encourage family members to think about AN differently. Particular activities are designed to help families separate the AN from the child, identify how AN has affected the family, and recognise how the family structure might have become organised around AN. Therapists facilitate the sharing of each family member's perspective to enhance each individual's understanding of how the AN might be being experienced by other family members. These specific systemic techniques aim to unbalance existing interactions and patterns amongst families, and lead to the development of new ways of thinking about and responding to AN. Therapists reported that carers began to understand their young person's experiences better and thought that the young people felt better understood by their parents. Changing shared meanings is a central goal of most systemic approaches.

Therapists site 3: "You might not see behavioural shifts but you can see processes starting and people thinking differently or understanding in a different way.

You can see people shift before your eyes. You can see pennies drop, and you think woah, they've really got that."

Therapists Site 2: "I think the other impact for young people was that they felt that their parents got it."

Externalising the eating disorder. Families reported that externalising techniques (White & Epston, 1989, 1990), which aimed help them understand that the ED was an illness separate from their child, were helpful. It has previously been recognised that MFT is helpful for shifting an illness away from a person, as families become aware of common behaviours that are characteristic of AN, and are not particular to their individual child (Asen, 2002). Changing family members' perspectives in this way can reduce blame of and frustration with the young person, allowing them to be more supportive rather than combative, thus improving those relationships and encouraging families and young people to work together against the ED.

Therapists site 3: "I guess one of the things that really happens in there is that real externalisation as well, because you are constantly talking about Anorexia…as something in the room, seven hours a day for four days."

Recognising how the eating disorder organises the family: One of the key reasons family therapy is recommended for ED is because of the way this illness 'organises' the family. A central goal of systemic practice is to recognise patterns that have developed around the ED, particularly any that might contribute to and maintain difficulties. This is thought to be a catalyst for change, as more helpful patterns of interaction can then be considered (Dallos & Draper, 2015). Carers and young people suggested that being around other families promoted the recognition of interactional patterns within their own families.

Therapists site 3: "someone said that [sculpt] was one of the most powerful things, just seeing how Anorexia had sort of scattered their family really."

Carers: "It's the classic thing of creeping changes in behaviour that you start accommodating…MFT highlighted that, and that these were sort of classic behaviours…and you kind of thought 'okay, right yes we are assisting the illness by doing this'…so that was really useful for us I think."

Young person: "Doing family sculpt stood out for me - felt helpful. Made me think more about what's happened in my family"

Sharing perspectives within the family: Both carers and therapists identified that MFT allowed carers to better understand the experience that their child was going through, and again promoted shared meanings within the family. Notably, one specific exercise was identified as being important for creating this shift, which was role-playing the voice of anorexia during a role-reversal (young person and adult) activity (Simic & Eisler, 2015).

Carer: "when I had to play the part of the young person -- and I suppose I hadn't really been forced to actually get into that head space before and to really think 'what exactly is the person going through?' -- and it was very good… I remember that and sometimes I think I can actually picture that and I say to X 'is that voice there again?"

Therapists Site 3: "there was a quote at the end where X said that she had 'finally understood what her daughter was thinking or feeling or experiencing' which I just think is really powerful isn't it."

f) Parental confidence. One of the reasons MFT is suggested to be effective is because it increases parental confidence and in turn reduces their sense of helplessness and helps them feel empowered to make further positive changes. Therapists believed they saw an increase in parental confidence across the course of the intervention.

Therapists Site 1: "The parental confidence in managing the young child, I think that was where we saw the biggest change".

Theme 2: Incorporating MFT into the AN treatment pathway

There are a number of mechanisms that seem to underlie the recovery-focused change that has been associated with MFT. However, it is important to understand how these mechanisms complement aspects of other interventions currently offered.

Richness of MFT compared to SFT. Therapists identified that some activities used in MFT and SFT might be similar but noted how these activities were experienced differently in these two settings. They commented on how family meals could be observed within SFT but that this feels less real and more 'set up' than meal-times that naturally occur within the course of MFT. Therapists also commented on how the information they gathered about families was much richer in MFT than in SFT, again

due to the fact that they were seeing families for extended periods of time and in an increasingly natural setting.

Therapists site 1: "We were able to see it in front of our eyes…we were dealing with meal times and then we would be able to deal with the whole thing and support them and actually really see it for what it was. I don't think, if you talked to a family in family therapy once a week for six months, we would ever have got that kind of rich information as what we saw in those first four days."

Therapists site 3: "You've got the power of observing meal times and snack times as well. You can do family meal but it's a little bit more stilted, it's a little less real, whereas in the group I think it is very real…and you can really challenge things which you probably can't do in the room so much at the individual family therapy".

Complementary aspects of MFT and SFT. There was widespread agreement that MFT should not replace any existing interventions within the existing AN pathway. Therapists noted benefits of both interventions and how these worked most effectively when offered in conjunction. However, they recognise that families attending MFT may need less SFT input.

Therapist site 2: "There were things we picked up in MFT that we then passed back for single family therapy to work on."

Therapist site 2: "There's a danger of thinking MFT fixes everything. I don't think it does. I think it can do an intense piece of work in those first stages."

Therapist site 2: "it did reduce our numbers quantitatively of single family therapy…so single family therapy became less frequent and that's one thing we were looking at is 'will using MFT reduce the frequency of SFT?'…It absolutely did for those families."

Discussion

There is an increasing focus on young people with EDs within national healthcare services, and timely and effective intervention can significantly reduce the long-term impact of this disorder. This project was conducted to improve the treatment pathway for young people with AN within a newly developed CEDS-CYP in the south-west of England, and to evaluate whether MFT should be routinely provided within this service. However, data generated from this project can be applied to young person's ED

services across the UK and can inform general understanding of the unique aspects of MFT for AN that may contribute to its effectiveness.

Therapists and carers identified several mechanisms of MFT that they believed contributed to change, that can be considered in the context of systemic theory of EDs. Systemic theory recognises common ways that family interactions become defined by EDs, that potentially perpetuate the young person's difficulties. Systemic practice aims to identify these patterns, to open up perspectives of EDs within the family, to create shared understanding of the ED amongst family members, and to develop more adaptive responses to the ED (Eisler, Simic, Blessitt, et al., 2016). Whilst most family-based interventions aim to achieve this change, carers and therapists acknowledged that the MFT programme, and especially being around other families with similar experiences, allowed perspectives to be effectively shared, understood, and adjusted, and for shared meanings of the ED to be developed.

Carers recognised how other families accommodated the AN and believed this enhanced insight into their own family's responses to AN. Family reorganisation around an ED is a central maintaining factor of this illness (Eisler 2005), and if MFT promotes this recognition then this is likely to be key to therapeutic change. Carers also identified that seeing families at different 'stages' of recovery was beneficial. EDs can disrupt typical life cycle processes (Carter & McGoldrick, 2005), and seeing other families move through different life stages can foster hope, and broaden the here-and-now focus that often develops when a young person has an ED.

The intensity of MFT was identified as being central to change. Inpatient interventions are intensive, but have been criticised for 'sidelining' parents, which not only diminishes their confidence in caring for their child but also potentially damages their relationship with services (Scholz, Rix, Scholz, Gantchev, & Thömke, 2005). Therapists and carers in our study noted that MFT promotes parental confidence and improves the therapeutic relationship with services. Therapists support the family during an intense four-day period, and families increasingly felt that therapists understood their difficulties and were there to support them. Families accessing services for AN become part of a wider system, and systemic theory would suggest that relationship changes in this wider system are likely to effect overall change.

Compared to SFT, therapists commented on the richness of the information they gained from families during MFT. This again effected change within the wider system, as therapists understood families better and shared meanings were developed. Furthermore, therapists felt the intensity of MFT enforced carers to acknowledge and

accept the ED, which gave them impetus to challenge it, reduced their sense of helplessness, and shifted perspectives amongst system members that this was something that needed to be confronted.

Carers and therapists believed MFT allowed them to view AN differently, which is a key driver for change. Specific activities enabled individuals to externalise AN and to better understand perspectives of other family members. SFT similarly aims to change how the young persons' difficulties are understood, and often achieves this. However, carers and therapists believed that being around other families really shifted how AN was perceived. Carers reported that they were increasingly able to view AN as separate to their child when they realised that much of their behaviour was shared by other young people and characteristic of the illness. Externalising techniques reinforce the idea that families need to come together to 'resist' the ED, and therefore creates a shift in how they begin to manage the ED (Eisler, 2005).

Carers and therapists agreed that MFT is beneficial and should be included in ED treatment pathways. Therapists believed that important information about families can be gathered in MFT and addressed in SFT. In line with NICE recommendations, therapists concluded that MFT should be used to complement SFT.

The most notable limitation of this study is that there is limited understanding of how young people themselves experienced MFT. This is common to research into MFT and future studies would do well to focus on this area. Moreover, this was a pilot study with a small sample, limiting the conclusions that can be drawn. Future research should aim to include a larger number of families who have attended MFT groups to draw more robust conclusions about possible change mechanisms of this intervention.

Conclusion

This project identified unique aspects of MFT that are likely to promote recovery-focused change. The specific activities within MFT, as well as processes within this therapeutic approach, create change in the relationships between family members and between families and services, and develop a shared understanding of AN within these systems. Being amongst families with shared experiences is thought to challenge factors that contribute to AN by: promoting recognition of how family patterns develop around AN; enhancing parental efficacy; broadening the narrowed 'here-and-now' focus on AN; and fostering hope. MFT is thought to complement existing interventions and should be offered as an adjunct. However, it might reduce the need for inpatient admission and the frequency of SFT, which would promote quicker recovery and greater wellbeing, and be more cost effective for stretched services.

References

Asen, E. (2002). Multiple family therapy: an overview. *Journal of Family Therapy*, *24*(1), 3–16.

Bailey, A. P., Parker, A. G., Colautti, L. A., Hart, L. M., Liu, P., & Hetrick, S. E. (2014). Mapping the evidence for the prevention and treatment of eating disorders in young people. *Journal of Eating Disorders*, *2*(1), 5.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.

Carter, B., & McGoldrick, M. (2005). Overview: The expanded family life cycle. Individual, family and social perspectives. In B. Carter & M. McGoldrick (Eds.), *The expanded family life cycle. Individual, family and social perspectives.* (Third., p. 1–26.). Boston, MA: Allyn and Bacon.

Dallos, R., & Draper, R. (2015). An introduction to family therapy: Systemic theory and practice. Journal of Family Therapy (Vol. 22). Open University Press.

Dare, C., & Eisler, I. (2000). A multi-family group day treatment programme for adolescent eating disorder. *European Eating Disorders Review*, *8*(1), 4–18.

Eisler, I. (2005). The empirical and theoretical base of family therapy and multiple family day therapy for adolescent anorexia nervosa. *Journal of Family Therapy*, *27*(2), 104–131.

Eisler, I., Lock, J., & Le Grange, D. (2010). Family-Based Treatments for Adolescents with Anorexia Nervosa: Single-Family and Multifamily Approaches. New York: Guilford Press.

Eisler, I., Simic, M., Blessitt, E., & Dodge, L. (2016). *Maudsley Service Manual for Child and Adolescent Eating Disorders*. Retrieved from https://www.national.slam.nhs.uk/wp-content/uploads/2011/11/Maudsley-Service-Manual-for-Child-and-Adolescent-Eating-Disorders-July-2016.pdf

Eisler, I., Simic, M., Hodsoll, J., Asen, E., Berelowitz, M., Connan, F., … Landau, S. (2016). A pragmatic randomised multi-centre trial of multifamily and single family therapy for adolescent anorexia nervosa. *BMC Psychiatry*, *16*(1), 422.

Hay, P. (2015). Course and Outcome of Eating Disorders. In *Encyclopedia of Feeding and Eating Disorders* (pp. 1–4). Singapore: Springer Singapore.

Hudson, J. I., Hiripi, E., Pope, H. G., & Kessler, R. C. (2007). The Prevalence and Correlates of Eating Disorders in the National Comorbidity Survey Replication. *Biological Psychiatry*, *61*(3), 348–358.

Joffe, H., & Elsey, J. W. (2014). Free association in psychology and the grid elaboration method. *Review of General Psychology, 18*(3), 173.

Le Grange, D., & Eisler, I. (2009). Family interventions in adolescent anorexia nervosa. *Child and Adolescent Psychiatric Clinics, 18*(1), 159-173.

Le Grange, D., & Lock, J. (2011). Eating disorders in children and adolescents a clinical handbook. Guilford Press.

Lock, J., & Le Grange, D. (2015). Treatment manual for anorexia nervosa: A family-based approach. Guilford Publications.

McMaster, R., Beale, B., Hillege, S., & Nagy, S. (2004). The parent experience of eating disorders: interactions with health professionals. *International Journal of Mental Health Nursing*, *13*(1), 67–73.

National Institute for Health and Care Excellence (NICE). (2014). *Accessing NHS care and treatment recommended by NICE (*ECD4). Retrieved from: https://www.nice.org.uk/corporate/ecd4/chapter/is-the-treatment-recommended-as-part-of-another-type-of-nice-guidance

National Institute for Health and Care Excellence (NICE). (2017). Eating disorders: recognition and treatment (NG69). Retrieved from: https://www.nice.org.uk/guidance/NG69

NHS England. (2015). *Children and Young People's Improving Access to Psychological Therapies Programme*. Retrieved from: https://www.england.nhs.uk/mental-health/cyp/iapt/

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods, 16*(1).

Oakley Browne, M. A., Wells, E. J., Scott, K. M., & Mcgee, M. A. (2006). Lifetime Prevalence and Projected Lifetime Risk of DSM-IV Disorders in Te Rau Hinengaro: The New Zealand Mental Health Survey. *Australian & New Zealand Journal of Psychiatry*, *40*(10), 865–874.

Scholz, M., & Asen, E. (2001). Multiple family therapy with eating disordered adolescents: concepts and preliminary results. *European Eating Disorders Review*, *9*(1), 33–42.

Scholz, M., Rix, M., Scholz, K., Gantchev, K., & Thömke, V. (2005). Multiple family therapy for anorexia nervosa: Concepts, experiences and results. *Journal of Family Therapy*, *27*(2), 132–141.

Simic, M., & Eisler, I. (2015). Multi-Family Therapy. In K. L. Loeb, D. Le Grange, & J. Lock (Eds.), *Family Therapy for Adolescent Eating and Weight Disorders: New Applications*. New York: Routledge.

Voriadaki, T., Simic, M., Espie, J., & Eisler, I. (2015). Intensive multi-family therapy for adolescent anorexia nervosa: Adolescents' and parents' day-to-day experiences. *Journal of Family Therapy*, *37*(1), 5–23.

White, M., & Epston, D. (1989). *Literate Means to Therapeutic Ends.* Adelaide: Dulwich Centre Publications.

White, M., & Epston, D. (1990). *Narrative Means to Therapeutic Ends*. New York: WW Norton & Company.

Appendix 2.3 Service Improvement Project Ethical Approval

Avon and Wiltshire NHS
Mental Health Partnership NHS Trust

Avon and Wiltshire Mental Health Partnership AWP Trust
AWP Quality Academy
Fromeside- East Wing
Manor Road
Fishponds
BS16 2EW

[redacted]

Hannah Wiseman
Clinical Psychologist in training
University of Bath

Date: 25th May 2016

Dear Hannah

An evaluation of a Multi Family Therapy Group for Adolescents with Anorexia Nervosa and their families
AWP Reference: E2016.016

This letter is to confirm that your evaluation is now approved and also provides you with our reference number.

If you do need any further support or information, please contact us using the contact details above, quoting our reference number for your study.

The importance of disseminating all evaluation work cannot be over emphasised. It is only by sharing our learning that we can improve services across AWP. For this reason, the findings of all evaluation work should be reported to the Evaluation team via email.

The team will champion the results of service evaluations, and work with evaluators to ensure those results are disseminated and acted upon, and that the results of evaluations are reflected in future service delivery. The team will also work with evaluators to produce publications for the public domain.

I very much look forward to receiving the results of your evaluation in due course.

Yours sincerely,

Janet Brandling

Avon and Wiltshire NHS
Mental Health Partnership NHS Trust

Avon and Wiltshire Mental Health Partnership AWP Trust
Fromeside- East Wing
Manor Road
Fishponds
BS16 2EW

[redacted]
Hannah Wiseman
Clinical Psychologist in training
University of Bath

Date: 21st August 2017

Dear Hannah,

An evaluation of a Multi Family Therapy Group for Adolescents with Anorexia Nervosa and their families
AWP Reference: E2016.017

This letter is to confirm that your evaluation extension and protocol amendment are now approved and also provides you with our reference number. The project is now approved until December 2017. If you require a further extension to this date please get in touch.

If you do need any further support or information, please contact us using the contact details above, quoting our reference number for your study.

The importance of disseminating all evaluation work cannot be over emphasised. It is only by sharing our learning that we can improve services across AWP. For this reason,

the findings of all evaluation work should be reported to the Evaluation team via email. The team will champion the results of service evaluations, and work with evaluators to ensure those results are disseminated and acted upon, and that the results of evaluations are reflected in future service delivery. The team will also work with evaluators to produce publications for the public domain.

I very much look forward to receiving the results of your evaluation in due course.

Yours sincerely,

Bryony McCann

Additional Ethical Approval: Additional ethical approval was obtained from the University of Bath (reference 16-147) and the project was also approved by the two NHS sites from which participating clinicians were recruited (Weston Area Health NHS trust and Exeter CAMHS). Emails referring to these approvals are presented below:

University of Bath:
8th June 2016

Dear Hannah Wiseman

Ethics Reference 16-147: Evaluation of Multi Family Therapy for Adolescents with Anorexia Nervosa and their families

The ethics committee have considered your ethics proposal for the study above and have given it full ethical approval. Please send the R and D approval upon receipt for our records.

Best wishes with your research.
Dr Michael J Proulx
Chair, Psychology Research Ethics Committee

18th August 2017

Dear Hannah,

Thank you for letting us know about this amendment. I am happy to confirm that you have received full ethical approval, via Chair's Action. Your file will be updated to include these changes.

Best of luck with your research,

Dr. Nathalia Gjersoe
Chair, Psychology Ethics Committee
Weston Area Health NHS Trust

Dear Hannah,

I have confirmed with [MFT clinician] that she is happy to assist you with your project. On that basis we are happy for you to proceed with your project as you have described in your protocol and supporting information sent to us.

Best wishes,

Harvey

Harvey Dymond
R&D Manager/Senior Research Nurse
R&D Department
Weston General Hospital
Grange Road, Uphill
Weston-super-Mare
Somerset BS23 4TQ
Tel: XXX
Fax: XXX
Bleep XXX

Exeter CAMHS service

Yes that's totally fine Hannah and accept this as approval to use. However, if you plan to mention virgin care in your write up I will need to get permission from our comms team we are very brand protective.

Joanne Howard
Head of Quality
Virgin care limited

Appendix 2.4 Service Improvement Project: Participant information sheets

Evaluation of a Multi Family Therapy Group for young people with Anorexia and their families

Participant Information Sheet for individuals who attend for MFT in AWP

You are being given this information sheet as you have recently been attending a Multi Family Therapy (MFT) Group aimed at supporting young people with Anorexia and their families. We are hoping to evaluate the MFT Group, to assess whether it has been beneficial to you or not, and to understand how it could be changed or improved. You are invited to take part in this evaluation, and we would greatly appreciate the opportunity to hear your views about this intervention.

Before you decide, it is important to understand why this evaluation is being done and what it will involve. Please read the following information carefully and contact me if there is anything that is not clear or if you would like more information.

The purpose of the study

Families who access the AWP CAMHS service to receive care for their child with Anorexia have consistently reported that they would like more support from professionals and other families with similar experiences. Additionally, many families do not think that one hour of treatment a week is enough to meet their needs. This is the first time that MFT has been offered in the Avon and Wiltshire Partnership (AWP) trust, and we want to find out if families feel better supported if they have access to this intervention.

MFT has been used in other NHS trusts in the country, but they have found this approach to be helpful. Previous research has shown that MFT enables families to feel more confident in supporting their young person with Anorexia. It has been suggested that people find the group setting supportive, as it allows the sharing of experiences. We hope to find out if families who attend our MFT group have experienced any benefits.

However, the nature of this approach can also come with its challenges, both practical and personal to the participants. Another purpose of this study is to find out about your

experiences of the group and to hear your perspectives about how it could be improved. This will help us to determine whether MFT should be offered routinely to families in the AWP service.

Research objectives

- To investigate the views and perspectives of young people and their families who have attended MFT, both positive and negative, to understand the benefits and challenges of accessing this intervention.
- To identify how this intervention might be a useful addition to current treatments, and understand how it might aid recovery.

Realisation of the above aims will allow for two supplementary aims:

- To develop recommendations for including MFT groups into the treatment pathway for young people with Anorexia in the local area.
- To improve this intervention in line with challenges and difficulties identified by participants.

Who will take part and what are the potential hazards

All young people and families participating in the MFT group will be invited to take part in this evaluation. All attendees have been invited to complete questionnaires throughout the group program, and we will request your permission to include these questionnaires in our evaluation. We will also invite you to complete a set of questionnaires 6 months after the intervention finishes.

We would also find it helpful to access weight for height data that is routinely recorded for young people as part of their therapeutic treatment in their community team or adolescent unit. As you will be aware, the weight for height data is another indicator of recovery, and so would help us to see the young persons' progress whilst accessing the MFT Group. Following the intervention we would also like to review what treatment you continue to access, by accessing information about the types of appointments that you are offered. This information will not include any content discussed in these appointments but simply whether you continue to have appointments in CAMHS or the unit and the therapeutic modality of these.

We will invite all parents and carers to attend a focus group at the end of the program, which will be an opportunity to share opinions and views on the MFT program. The young people will be invited to attend a one to one interview, in order to share their views. If the young people choose not to participate in the interview, they will be invited to write down their views about the intervention.

I will be available to discuss any aspect of the research throughout its duration, either by email or in person. Dr. Sarah Latham, Clinical Psychologist and Systemic Family Practitioner, will also be available after the interviews and focus groups to address any concerns that may arise.

Although I will keep any conversations confidential in adherence to strict guidelines, in the situation that I am concerned about any risk to any participant in the study, I will let you know that I am concerned and need to share this information. I will then raise my concerns with Dr. Latham, who will assess the situation and contact you to explore any issues further. Dr Latham will then liaise with your treating team as appropriate, but this will be discussed with you.

Whether or not you choose to participate in the study is your choice, and you are able to withdraw at any point in the process. You do not have to provide a reason for why you do not want to participate or why you want to withdraw. If you choose to not participate then this will not have any impact on your future treatment or care with the AWP service.

How long will it take?

The focus group and interviews will be conducted approximately one month after the last day of the group. Invitation to join the group will be an opt-in on the last day of the group. It is hoped that at least 6 people will attend the focus group, and the group will take about an hour. Young people who are happy to be interviewed will be given different slots to sign up to, provided by the researcher, who will provide as much flexibility as possible. Each young person interview will last up to a maximum of an hour. Travel will be paid to attend this group.

Questionnaires have been given out as part of the routine feedback taken after each group session. On the last day of the group you will be able to opt in to whether we can

use this data in the evaluation. The final questionnaires will be sent to you to complete online, 6 months after the last day of the group. It will be your decision whether you complete them. Completion of the questionnaires will only take a few minutes.

Confidentiality

The focus group will be taped and transcribed by myself, and any identifying information will be changed. All questionnaires and consent forms will be kept separately in a locked filing cabinet. The questionnaires will be given ID numbers and will not include participant's names. The raw data will be analysed by myself and only I will have access to this data in its unidentifiable form. The final analysis will be conducted by me in consultation from those whom I seek advice (see final section). These individuals may access the raw data in its anonymised form.

Findings

The results of this study will be sent to the examining board of the Clinical Psychology Doctorate at Bath. A report will also be written for the commissioning body of AWP, to inform them of findings, and to present any recommendations for service development. Versions of the results will also be submitted for publication to journals and presentation at conferences deemed appropriate. This would help add to a growing body of research regarding the efficacy of treatments for child and adolescent eating disorders. Please be assured that your data will not be identifiable in any version of results submitted for publication or presentation.

People involved in the study:

- Hannah Wiseman, Clinical Psychologist in Training, University of Bath – Main researcher
- Dr. Sarah Latham, Clinical Psychologist and Systemic Family Practitioner, CAMHS, AWP
- Dr. Lauren Russouw, Clinical Psychologist and Systemic Family Practitioner, CAMHS, AWP
- Dr Catherine Butler, Course tutor, University of Bath

These people and the ethics board of the University of Bath have confirmed that this study is ethical.

Thank you for your time taken to read this sheet and consider taking part in this investigation.

Hannah Wiseman
(hw271@bath.ac.uk)

Evaluation of a Multi Family Therapy Group for young people with Anorexia and their families

Participant Information Sheet for Therapists delivering Multi Family Therapy (MFT)

I am a Clinical Psychologist in training, who is currently conducting research within a CAMHS team in the Avon and Wiltshire Partnership (AWP) Trust.

The AWP trust has just finished running a Multi Family Therapy (MFT) Group for young people with Anorexia and their families for the first time. It is a very new intervention to be offered by this Trust, and we are trying to improve the group to ensure that we are supporting families as best as possible.

You are being given this information sheet as you have recently been involved in the delivery of a Multi Family Therapy (MFT) Group aimed at supporting young people with Anorexia and their families.

We are hoping to evaluate how the MFT intervention has been implemented within AWP, to understand how it could be changed or improved. We are going to conduct focus groups with MFT group participants to hear their perspectives on the intervention, but would also like to gather the perspectives of the clinicians who are delivering the intervention. You are invited to take part in this evaluation, and we would greatly appreciate the opportunity to hear your views about this intervention.

Before you decide, it is important to understand why this evaluation is being done and what it will involve. Please read the following information carefully and contact me if there is anything that is not clear or if you would like more information.

The purpose of the study

Families who access the AWP CAMHS service to receive care for their child with Anorexia have consistently reported that they would like more support from professionals and other families with similar experiences. Additionally, many families do not think that one hour of treatment a week is enough to meet their needs. This is the first time that MFT has been offered in the Avon and Wiltshire Partnership (AWP) trust, and we want to find out if families feel better supported if they have access to this intervention.

Whilst previous research has identified benefits of MFT for young people with Anorexia and for their families, the nature of the MFT approach can also come with its challenges, both practical and personal. We are interested in finding out more about these challenges for the group participants, but also about any challenges experienced by the therapists delivering this intervention. In addition, we would like to hear the views of the clinicians in regards to how they perceive MFT to benefit families in a way which might differ to treatments currently offered within AWP. This will help us to determine whether MFT should be offered routinely to families in the AWP service, and if so how it can be improved in light of the challenges identified by both participants and therapists.

Research objectives

- To investigate the views and perspectives of young people and their families who have attended MFT, both positive and negative, to understand the benefits and challenges of accessing this intervention.
- To investigate the perspectives of therapists who deliver MFT to understand the benefits and challenges of delivering this intervention.
- To identify how this intervention might be a useful addition to current treatments, and understand how it might aid recovery.

Realisation of the above aims will allow for two supplementary aims:

- To develop recommendations for including MFT groups into the treatment pathway for young people with Anorexia in the local area.
- To improve this intervention in line with challenges and difficulties identified by participants and therapists.

Your involvement

You are being invited to attend a focus group with other therapists in the region who have delivered this MFT program. The focus group will consist of approximately 6 people and will last about an hour. We will be interested in hearing your perspectives about delivering MFT.

I will be available to discuss any aspect of the research throughout its duration, either by email or in person. Dr. Sarah Latham, Clinical Psychologist and Systemic Family

Practitioner, will also be available after the focus group to address any concerns that may arise.

Although I will keep any conversations confidential in adherence to strict guidelines, in the situation that I am concerned about any risk regarding any therapist who is participating in the study, I will let you know that I am concerned and need to share this information. I will then raise my concerns with Dr. Latham, who will assess the situation and contact you to explore any issues further.

Whether or not you choose to participate in the study is your choice, and you are able to withdraw at any point in the process. You do not have to provide a reason for why you do not want to participate or why you want to withdraw.

Confidentiality

The focus group will be taped and transcribed by myself, and any identifying information will be changed. All consent forms will be kept separately in a locked filing cabinet. The raw data will be analysed by myself and only I will have access to this data in its unidentifiable form. The final analysis will be conducted by me in consultation from those whom I seek advice (see final section). These individuals may access the raw data in its anonymised form.

Findings

The results of this study will be sent to the examining board of the Clinical Psychology Doctorate at Bath. A report will also be written for the commissioning body of AWP, to inform them of findings, and to present any recommendations for service development. Versions of the results will also be submitted for publication to journals and presentation at conferences deemed appropriate. This would help add to a growing body of research regarding the efficacy of treatments for child and adolescent eating disorders. Please be assured that your data will not be identifiable in any version of results submitted for publication or presentation.

People involved in the study:

- Hannah Wiseman, Clinical Psychologist in Training, University of Bath – Main researcher

- Dr. Sarah Latham, Clinical Psychologist and Systemic Family Practitioner, CAMHS, AWP
- Dr. Lauren Russouw, Clinical Psychologist and Systemic Family Practitioner, CAMHS, AWP
- Dr Catherine Butler, Course tutor, University of Bath

These people and the ethics board of the University of Bath have confirmed that this study is ethical.

Thank you for your time taken to read this sheet and consider taking part in this investigation.

Hannah Wiseman
hw271@bath.ac.uk

Appendix 2.5 Service Improvement Project: Consent forms

CONSENT FORM FOR YOUNG PEOPLE AND THEIR FAMILIES

Title of project: Evaluation of a Multi Family Therapy Group for young people with Anorexia and their families

Name of Researcher: Hannah Wiseman

		Please circle
1.	I have read the information sheet about this study	Yes / No
2.	I have had the opportunity to ask questions and discuss this study	Yes / No
3.	I have received satisfactory information about this study	Yes / No
4.	I understand I am free to withdraw from this study:	Yes / No

- At any time
- Without giving a reason for withdrawing
- And that I can omit questions on the questionnaire or in discussions that I do not wish to answer

5. I understand that my information will be kept confidential. However, in the situation that the researcher is concerned about any risk to myself of family members, I understand that they will raise their concerns with the therapist overseeing this research, Dr Sarah Latham.

Yes / No

6. I understand that the findings of this project will shared with both the AWP CAMHS service and other similar services, possibly by publication in scientific journals. I understand that all written reports will be anonymous and I agree for my input to be used in this way.

Yes / No

7. I understand that the consent that I give is layered, and I do not have to consent to all parts of the study.

Yes / No

8. I agree to take part by: (please circle Yes/No for each statement as appropriate)

- Allowing my responses to routine questionnaires taken at the end of each session to be used as part of the evaluation

Yes / No

- Completing online questionnaires 6 months after the last group session?

Yes / No

If Yes, please include your e-mail address:

……

- Allowing the researcher to access medical records/notes from the services from which I receive care?

Yes / No

- Taking part in the focus group (families) or interview (young people)?

Yes / No

- Completing the young persons' questionnaire about my experiences of the group?

Yes / No

Signed

……..

Date ……..

Name in Block Letters

Signature of investigator …….

CONSENT FORM FOR MFT CLINICIANS

Title of project: Evaluation of a Multi Family Therapy Group for young people with Anorexia and their families

Name of Researcher: Hannah Wiseman

		Please circle
1.	I have read the information sheet about this study	Yes / No
2.	I have had the opportunity to ask questions and discuss this study	Yes / No
3.	I have received satisfactory information about this study	Yes / No
4.	I understand I am free to withdraw from this study:	Yes / No

- At any time
- Without giving a reason for withdrawing
- And that I can omit questions on the questionnaire or in discussions that I do not wish to answer

5. I understand that my information will be kept confidential. However, in the situation that the researcher is concerned about any risk to myself of family members, I understand that they will raise their concerns with the therapist overseeing this research, Dr Sarah Latham.

Yes / No

6. I understand that the findings of this project will shared with both the AWP CAMHS service and other similar services, possibly by publication in scientific journals. I understand that all written reports will be anonymous and I agree for my input to be used in this way.

Yes / No

7. I agree to take part in this study :

Yes / No

Signed

……..

Date ……..

Name in Block Letters

Signature of investigator …….

Appendix 2.6 Service Improvement Project: Debrief sheets

An evaluation of Multi Family Therapy for adolescents with Anorexia and their families.

Debrief sheet for individuals accessing MFT in AWP:

Thank you very much for participating in this project. We really value hearing your views about whether you have found the Multi Family Therapy (MFT) group to be helpful.

We will use the questionnaire measures that you completed to help us understand whether the intervention was helpful for your recovery (young person) and whether you feel better equipped to support your child (families). The opinions and ideas that you expressed in the discussions will be used to improve the MFT treatment so that we can best help other service users and their families.

The information you have provided will be used to produce a report to local commissioners about whether or not MFT should continue to be offered within our service. It will also be published in an academic journal which will help other services across the country consider whether this is a treatment they want to offer. Please be assured that all of your information will be anonymised and no identifiable information will be included.

We hope you enjoyed participating in this project and that it did not cause you any concerns. If it did, or if you have any questions about your involvement or the nature of this project, then please do not hesitate to contact me. My contact details can be found below. I have also included a list of helpful services that you can contact if you have experienced any concerns whilst participating in this project.

Thank you again for your participation.

Hannah Wiseman
Email: XXX
Tel: XXX

List of local support services:

beat: Beating Eating Disorders
Beat helpline - 0845 634 1414 open Monday to Friday 10:30 AM - 8:30 PM, and Saturday 1.00pm - 4:30 PM. Youthline - 0845 634 7650 open Monday to Friday 4:30 PM to 8:30 PM, and Saturday 1:00 PM to 4:30 PM.

Bristol MindLine
0808 808 0330 Weds-Sun 8pm-12am

Carers' Support Centre
CarersLine: 0117 965 2200

ChildLine
0800 1111 (24-hour free helpline)

Rethink Advice and Information Service
0845 456 0455

Samaritans
116 123 - National, freephone 0117 983 1000 - Local rate charge

An evaluation of Multi Family Therapy for adolescents with Anorexia and their families.

Debrief for Therapists:

Thank you very much for participating in this project. We really value hearing your views about whether you believe that the Multi-family therapy (MFT) group was helpful for families within your care.

We were especially interested to hear about how you think this intervention might benefit families in a way which is different to treatments that you routinely offer, such as Single Family Therapy (SFT). This will help us to better understand the unique change mechanisms of MFT. The opinions and ideas that you expressed in the discussions will be used to improve the MFT treatment so that we can best help future service users and their families.

We are also interested to understand your experience, as a therapist, of delivering this intervention. It will be helpful to understand both practical and personal challenges that you might have experienced, and to know your views on what it was like as a clinician to offer this treatment.

The information you have provided will be used to produce a report to local commissioners about whether or not MFT should continue to be offered within our service. It will also be published in an academic journal which will help other services across the country consider whether this is a treatment they want to offer. Please be assured that all of your information will be anonymised and no identifiable information will be included.

We hope you enjoyed participating in this project and that it did not cause you any concerns. If it did, or if you have any questions about your involvement or the nature of this project, then please do not hesitate to contact me. My contact details can be found below.

Thank you again for your participation.

Hannah Wiseman
Email: XXX
Tel: XXX

Appendix 2.7 Service Improvement Project: Measures

Measures have been removed for copyright reasons.

Appendix 3. Main research project

Appendix 3.1 Journal of adolescent health submission guidelines

Manuscript Preparation

Subdivision

Divide your article into clearly defined sections. Each subsection is given a brief heading. Each heading should appear on its own separate line. Subsections should be used as much as possible when cross-referencing text: refer to the subsection by heading as opposed to simply 'the text.'

The text of Original Articles and Briefs should usually, but not necessarily, be divided into the following sections: **Introduction**, **Methods**, **Results**, and **Discussion**. Additionally, the *Journal* requests an **Implications and Contribution** summary statement.

Implications and Contribution: In addition to the abstract, please include a summary statement at the beginning of your manuscript. This summary should be no more than 50 words in length and should describe the significance of your study's findings and its contribution to the literature in plain language. These summaries appear on the published articles and in various digests and newsletters.

Introduction: The introduction should clearly state the purpose(s) of the article and summarize the rationale for the study of observation. Please do not include an "Introduction" heading, just text. Only pertinent references should be used.

Methods: The selection of observational or experimental subjects (patients or experimental animals, including controls) should be clearly described in the Methods section. The methods, apparatus, and procedures used should be described in enough detail to allow other workers to reproduce the results. References should be provided for established methods, including statistical methods. Methods that are not well known should be concisely described with appropriate references. Any new or substantially modified method(s) should be carefully described, reasons given for its use, and an evaluation made of its known or potential limitations. All drugs and chemicals used should be identified by generic name(s), dosage(s), and route(s) of administration. The

numbers of observations and the statistical significance of findings should be included when appropriate. Patients' names, initials, or hospital numbers should not be used.

*Note that when reporting experiments utilizing human subjects, approval of the protocol by the sponsoring Institution's Committee on Human Subjects or its equivalent must be stated explicitly within the Methods section of the manuscript. In addition, the protocol for obtaining informed consent should be briefly described.

Results: Results should be presented in a logical sequence in the text, table(s), and illustration(s). Only critical data from the table(s) and/or illustration(s) should be repeated in the text.

Discussion: Emphasis in the Discussion section should be placed on the new and important aspects of the study and the conclusions that can be drawn. Detailed data from the results section should not be repeated in the discussion. The discussion should include the implications and limitations of the findings and should relate the observations to other relevant studies. The link between the conclusion(s) and the goal(s) of the study should be carefully stated, avoiding unqualified statements and conclusions not completely supported by the data. The author(s) should avoid claiming priority and alluding to work that has not yet been completed. New hypotheses, when stated, should be clearly identified as such. Recommendations, when appropriate, may be included.

Grammar, punctuation, and scientific writing style should follow the *AMA Manual of Style*, 10th edition.

Appendices

If there is more than one appendix, they should be identified as Appendix A, Appendix B, etc. Tables and figures in appendices should be given separate numbering: Table A1, Fig. A1, etc.

Essential Title Page Information

• ***Title.*** Concise and informative (titles are limited to 140 characters). Titles are often

used in information-retrieval systems. Avoid abbreviations and formulae where possible.

• ***Author names and affiliations.*** Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Include the full names of all authors, as well as the highest academic degrees (excluding bachelor-level degrees) and the departmental and institutional affiliation of each. Please note that the *Journal* does not list fellowships of professional or certifying organizations as credentials. Relevant sources of financial support and potential conflicts of interest should be reported for all authors. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.

• ***Corresponding author.*** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that phone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address. Contact details must be kept up to date by the corresponding author.**

• ***Present/permanent address.*** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

• ***Acknowledgments.*** The title page should also include an Acknowledgments section, listing any sources of support such as grants, equipment, or drugs; and any acknowledgments of persons who have made a substantive contribution to the study. Authors should obtain written permission from anyone that they wish to list in the Acknowledgments section. The corresponding author must also affirm that he or she has listed everyone who contributed significantly to the work in the Acknowledgments. Previous oral or poster presentations at local, regional, national or international meetings should be reported here.

Authorship Criteria

As a condition of authorship, all named authors must have seen the final draft of the manuscript, approve of its submission to the *Journal*, and be willing to take

responsibility for it in its entirety.

All named authors must complete a signed Statement of Authorship. The *Journal*'s Statement can be downloaded in PDF format at http://www.elsevier.com/__data/promis_misc/jah_soa.pdf. We prefer an electronic copy of the statement: please electronically sign the PDF using Acrobat or print the PDF, sign it by hand, and scan it. Completed forms should be uploaded with your manuscript submission. We can also receive statements by email at jaheditorial@ucsf.edu or byfax at (415) 476-6106, though it may delay processing of your manuscript.

If there are concerns about how all persons listed as authors meet the criteria for authorship according to the *Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication* available at http://www.icmje.org, we will request further information from the corresponding author and, if necessary, request written documentation of each person's work on the report.

The *Journal* does not list corporate authors, such as research networks, professional societies, or think tanks. Only individuals meet the *Journal*'s criteria for authorship.

The names, along with any conflicts of interest, funding sources, and industry-relation, of persons who have contributed substantially to a study but who do not fulfill the criteria for authorship are to be listed in the Acknowledgments section. This section should include individuals who provided any writing, editorial, statistical assistance, etc.

Abstract

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s).

The abstract should be provided in a structured table format with the following bolded

headings: **Purpose**, **Methods**, **Results**, and **Conclusions**. Emphasis should be placed on new and important aspects of the study or observations. Only common and approved abbreviations are acceptable, and they must be defined at their first mention in the abstract itself. Three to 10 key words or short phrases should be identified and placed below the abstract. These key words will be used to assist indexers in cross-indexing the article and will be published with the abstract. For this, terms from the Medical Subject Headings list in the Index Medicus should be used whenever possible.

Graphical abstract

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view Example Graphical Abstracts on our information site. Authors can make use of Elsevier's Illustration Services to ensure the best presentation of their images and in accordance with all technical requirements.

Abbreviations

Authors should provide a list of abbreviations on the title page. All acronyms in the text should be expanded at first mention, followed by the abbreviation in parentheses. The acronym may appear in the text thereafter. Do not use abbreviations in the title. Acronyms may be used in the abstract if they occur 3 or more times therein. Generally, abbreviations should be limited to those defined in the *AMA Manual of Style*, 10th edition.

Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Units

Follow internationally accepted rules and conventions: use the international system of units (SI). If other units are mentioned, please give their equivalent in SI.

Math formulae

Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

Artwork

Electronic Artwork

General points

• Make sure you use uniform lettering and sizing of your original artwork.
• Embed the used fonts if the application provides that option.

• Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Provide captions to illustrations separately.
• Size the illustrations close to the desired dimensions of the printed version.
• Submit each illustration as a separate file.
A detailed guide on electronic artwork is available on our website:
http://www.elsevier.com/artworkinstructions
You are urged to visit this site; some excerpts from the detailed information are given here.
Formats
If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.
Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
EPS (or PDF): Vector drawings, embed all used fonts.
TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.
Please do not:
• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
• Supply files that are too low in resolution;
• Submit graphics that are disproportionately large for the content.

Letters and symbols should be clear and even throughout and of sufficient size that when figures are reduced for publication (to approximately 3 inches wide), each item will still be legible. When symbols, arrows, numbers, or letters are used to identify parts of the illustrations, each should be identified and clearly explained in the legend.

If photomicrographs are to be submitted, the requirements for their presentation should be obtained from the Editor-in-Chief prior to submission.

If photographs of persons are used, either the subjects must not be identifiable or their pictures must be accompanied by written permission to publish the photograph.

If an illustration has been published, the original source must be acknowledged and accompanied by written permission from the copyright holder to reproduce the material. Permission is required regardless of authorship or publisher except for documents in the public domain.

Color artwork

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article**. Please indicate your preference for color: in print or online only. Further information on the preparation of electronic artwork.

Illustration services

Elsevier's WebShop offers Illustration Services to authors preparing to submit a manuscript but concerned about the quality of the images accompanying their article. Elsevier's expert illustrators can produce scientific, technical and medical-style images, as well as a full range of charts, tables and graphs. Image 'polishing' is also available, where our illustrators take your image(s) and improve them to a professional standard. Please visit the website to find out more.

Figure captions

Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables

Tables should be submitted as separate and individual files. Number tables consecutively in accordance with their appearance in the text. Each table should be given a brief title; explanatory matter should be placed in a table footnote. Place footnotes to tables below the table body and indicate them with superscript lowercase letters. Any nonstandard abbreviation should be explained in a table footnote. Avoid vertical rules. Be sparing in the use of tables and ensure that the data presented in tables do not duplicate results described elsewhere in the article. Statistical measures should be identified as measures of variation such as SD or SEM. If data from another published or unpublished source are used, permission must be obtained and the source fully acknowledged. EES will accept files from a wide variety of table-creation software.

References

Citation in Text

Authors are responsible for the accuracy of references. References should be numbered consecutively in the order in which they are first mentioned in the text. References cited only in tables or figure captions should be numbered in accordance with the sequence established by the first identification in the text of the particular table or figure. Identify references in text, tables, and captions by Arabic numerals in brackets. Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. An effort should be made to avoid using abstracts as references. Unpublished observations and personal communications are not acceptable as references, although references to written, not verbal, communications may be inserted into the text in parentheses. Citation of a reference as 'in press' implies that the item has been accepted for publication. References to manuscripts accepted but not yet published should designate the journal followed by (in press) or use the DOI if assigned. All references must be verified by the

authors against the original documents.

Reference links

Increased discoverability of research and high quality peer review are ensured by online links to the sources cited. In order to allow us to create links to abstracting and indexing services, such as Scopus, CrossRef and PubMed, please ensure that data provided in the references are correct. Please note that incorrect surnames, journal/book titles, publication year and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Use of the DOI is encouraged.

A DOI can be used to cite and link to electronic articles where an article is in-press and full citation details are not yet known, but the article is available online. A DOI is guaranteed never to change, so you can use it as a permanent link to any electronic article. An example of a citation using DOI for an article not yet in an issue is: VanDecar J.C., Russo R.M., James D.E., Ambeh W.B., Franke M. (2003). Aseismic continuation of the Lesser Antilles slab beneath northeastern Venezuela. Journal of Geophysical Research, https://doi.org/10.1029/2001JB000884. Please note the format of such citations should be in the same style as all other references in the paper.

Data references

This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

Reference management software

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley and Zotero, as well as EndNote. Using the word processor plug-ins from these products, authors only need to

select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
http://open.mendeley.com/use-citation-style/journal-of-adolescent-health
When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference style

The titles of journals should be abbreviated according to the style used in the list of Journals Indexed for MEDLINE, posted by the NLM on the Library's web site, http://www.nlm.nih.gov/tsd/serials/lji.html. Reference style should follow that of the *AMA Manual of Style*.

Supplementary data

The *Journal of Adolescent Health* accepts electronic supplementary material to support and enhance your scientific research. Supplementary files offer the author additional possibilities to publish supporting applications, high-resolution images, background datasets, sound clips and more. Supplementary files supplied will be published online alongside the electronic version of your article on JAHOnline.org and Elsevier's ScienceDirect: http://www.sciencedirect.com. In order to ensure that your submitted material is directly usable, please provide the data in one of our recommended file formats. Authors should submit the material in electronic format together with the article and supply a concise and descriptive caption for each file. For more detailed instructions please visit our artwork instruction pages at http://www.elsevier.com/artworkinstructions.

Data linking

If you have made your research data available in a data repository, you can link your

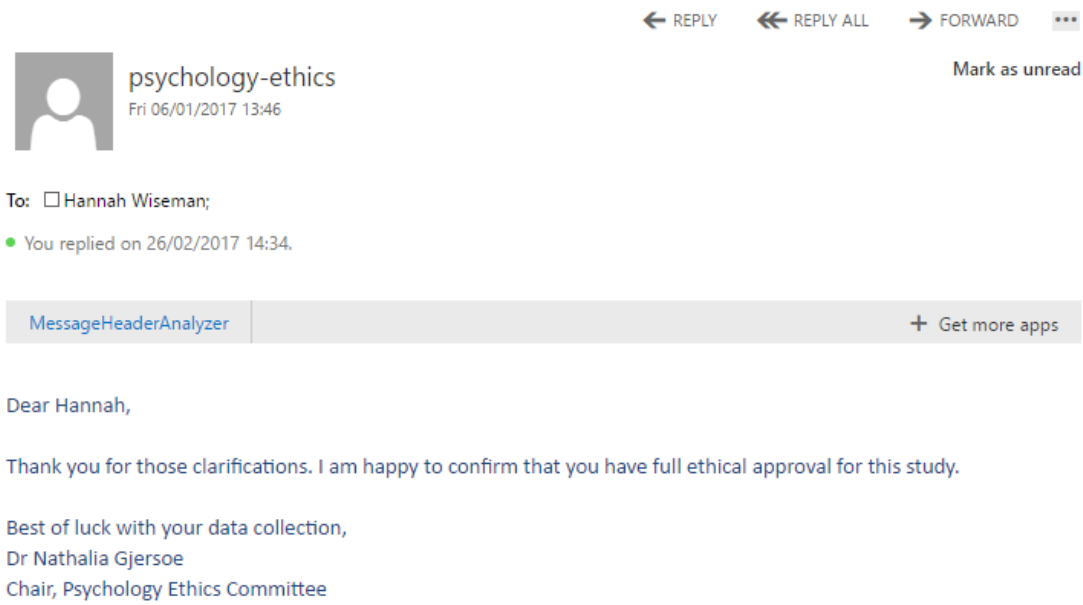
article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the database linking page.

For supported data repositories a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN

Appendix 3.2 Main Research Project Ethical Approval



REPLY REPLY ALL FORWARD ...

psychology-ethics
Fri 06/01/2017 13:46

Mark as unread

To: Hannah Wiseman;

You replied on 26/02/2017 14:34.

MessageHeaderAnalyzer + Get more apps

Dear Hannah,

Thank you for those clarifications. I am happy to confirm that you have full ethical approval for this study.

Best of luck with your data collection,
Dr Nathalia Gjersoe
Chair, Psychology Ethics Committee

Appendix 3.3 Main Research Project: Participant Information Sheet

Research exploring Psychological processes following experiences of abuse in young adult relationships

You have been directed to this webpage as you have shown interest in being part of research which is focusing on young adults who have had an experience of intimate partner violence (IPV). IPV can include physical, sexual, emotional, financial and psychological abuse.
Before you decide if you want to take part in this research, it is important to understand why it is being done and what it will involve. Please read the following information carefully.

What is this study about?
Research has shown that more than a quarter of young adults might be at risk of experiencing some form of abuse in their relationships. These experiences can happen to young adults in all types of relationships, whether they are married, living together or dating, including heterosexual, same-sex and transgender relationships.

There is not much research about how relationship abuse affects young adults. By doing this study we are hoping to get a better understanding of how experiences of abuse might affect how people think, feel or behave. It is hoped that a better understanding of this will enable mental health services to improve how they help young adults who have been in such relationships.

Who will take part?
All individuals between the ages of 18-25 years old who have experienced any form of relationship abuse are eligible to take part in the study. We are interested in peoples' experiences even if they do not believe that the abuse in their relationship has left them with ongoing difficulties.

What are we asking you to do?

Once you have read this information, you will be asked to consent to whether or not you want to take part in this study. You will then be directed to a set of online questionnaires to complete. Completion of these questionnaires is estimated to take about 30 minutes. For each person that completes these questionnaires a two pound donation to a named charity will be made. You will be able to choose to donate to one of three charities: Bristol Against Violence and Abuse (BAVA), Southside Domestic Abuse Advice and Advocacy, and Domestic Violence UK.

What will happen to the information I have provided?

You are not required to provide any identifiable information during this study. If you choose to participate, when you submit your questionnaire responses you will be asked to provide a nickname which does not include any personal information. The only reason for this is so that you will be able to withdraw your data at a later stage if you wish to do so. All data will be kept confidential and only the lead researcher will have access to this. Data will remain password protected and be stored securely.

What happens if you change your mind?

Whether or not you choose to take part in the study is your choice, and you are able to withdraw at any point up until December 2017. You do not have to provide a reason for why you do not want to participate. To withdraw from the study there will be an option on the website for you to provide the nickname that you chose when completing the survey, and this will be used to remove your data. This process will be completely anonymous. If you have been informed of this study via an online charity or organisation, then your choice to not participate will not have any impact on your ability to access their services.

What if the study makes you feel upset or worried?

At the end of the study you will be provided with a list of services in the region that you can contact if you are feeling distressed or feel as though you are at risk of further harm in your relationship. This will include contact details for charities which have helplines and staff who will be able to talk to you. You will also be encouraged to contact your GP if you have any concerns about your answers to the questionnaires.

What will happen to the results of this study?

The results of this study will be presented in group format and so no individual data will be presented. Results will be sent to the examining board of the Clinical Psychology Doctorate at Bath. Versions of the results will also be submitted for publication to journals and presentation at conferences deemed appropriate. This would help add to a growing body of research focused on the experience of relationship abuse in young adults. Please be assured that your data will not be identifiable at any point during the research process or in any version of results submitted for publication or presentation.

The ethics board of the University of Bath have confirmed that this study is ethical.

Thank you for taking your time to read this sheet and for considering taking part in this study.

Appendix 3.4 Main Research Project: Consent form

Consent form

Title of project: Research Exploring Psychological processes following experiences of Abuse in young adult Relationships

Please circle

1. I have read the information sheet about this study Yes / No

3. I have received satisfactory information about this study Yes / No

4. I understand I am free to withdraw from this study:

- At any time up until December 2017
- Without giving a reason for withdrawing
- And that I can omit questions on the questionnaire or in discussions that I do not wish to answer

Yes / No

5. I understand that I will not need to provide any identifiable information in order to be part of this study and that all responses to the questionnaires will be confidential

Yes / No

6. I understand that the findings of this project might be shared in scientific journals. I understand that all written reports will be anonymous and I agree for my input to be used in this way.

Yes / No

5. I agree to take part in this study:

Yes / No

Appendix 3.5 Main Research Project: Debrief sheet

Research Exploring Psychological processes following experiences of Abuse in young adult Relationships

Debrief sheet

Thank you very much for participating in this project.

Your responses to the questionnaires will be used to help us to better understand how abusive relationship experiences might affect a persons' thoughts, feelings and behaviours. This will help us to develop and improve the way that mental health services work with young adults who have been in abusive relationships. This will be an invaluable contribution to helping others who have also experienced intimate partner violence.

Please be assured that you have not provided any identifiable information to take part in this study, and so your identity will be completely anonymous when findings are disseminated.

If you wish to withdraw your involvement from this study and want your data to be removed, then please follow the link for 'withdrawing participation' on the website. This will provide you with information on how to withdraw and you will need to provide the nickname that you chose at the beginning of the study. Your data will then be removed. Due to the process of analysing and publishing this study the option to remove your data from the final write up will only be possible until December 2017.

Please remember it is possible to remove all traces of this website from your computer, tablet or mobile device. Please follow the steps listed on the following page if you wish to do this.

We hope you enjoyed participating in this project and that it did not cause you any concerns. If it did, we encourage you to contact your GP. We have also included a list of helpful services that you can contact if you have experienced any concerns whilst participating in this project.

Thank you again for your participation.

List of support services:

Bristol Against Violence and Abuse (BAVA)
www.bava.org.uk

Northern Arc Domestic Abuse Services
northern-arc.com

Southern Arc Domestic Abuse Services
www.southern-arc.com

Survive
survivedv.org.uk

Mens Advice Line
www.mensadviceline.org.uk

National Centre for Domestic Violence
www.ncdv.org.uk

Hidden Hurt
www.hiddenhurt.co.uk

Womens Trust
www.womanstrust.org.uk

Domestic Violence UK
domesticviolenceuk.org

National Domestic Violence Helpline
www.nationaldomesticviolencehelpline.org.uk

Women's Aid
https://www.womensaid.org.uk

Victim Support

https://www.victimsupport.org.uk/crime-info/types-crime/domestic-abuse

Refuge
http://www.refuge.org.uk/get-help-now/

Mankind
new.mankind.org.uk

Southside
www.south-side.org.uk

VOICES
www.voiceagainstviolence.org.uk

Deleting this website from your browser:

Chrome

1. Click the menu button on the top right hand corner which is three horizontal lines.
2. Select Settings
3. Select History on the left hand side
4. Select ‘Clear browsing data’ and make sure all boxes are ticked
5. Select ‘Clear browsing data’ again

Internet Explorer

1. Click the three dots on the top right hand corner
2. Select Settings
3. Scroll down and select ‘Clear browsing data’
4. Ensure all boxes are ticked
5. Click ‘Clear’

Appendix 3.6 Measures: The REPAIR Project survey.

All standardised measures have been removed for copyright reasons.

ID Please provide a username to access this survey. This username must not contain any identifiable information such as your email address, your full name or personal details.

If you want to withdraw from the study at any time please enter this username into the 'withdraw box' on the REPAIR project website and your survey responses will be removed. In order to maintain strict confidentiality, we will not save your username. It is important that you remember your username if you wish to withdraw at a later date.

Q1 What is your age?

- ○ 15 years old or under
- ○ 16 years old
- ○ 17 years old
- ○ 18 years old
- ○ 19 years old
- ○ 20 years old
- ○ 21 years old
- ○ 22 years old
- ○ 23 years old
- ○ 24 years old

- ○ 25 years old
- ○ 26 years old or over

Skip To: End of Survey If What is your age? = 26 years old or over
Skip To: End of Survey If What is your age? = 15 years old or under
Skip To: End of Survey If What is your age? = 16 years old
Skip To: End of Survey If What is your age? = 17 years old

Q2 By what gender do you identify? (e.g. Male/Female)

_____

Q3 What country do you live in?

_____

Q4 How would you describe your ethnicity?

- ○ White
- ○ Black or African American
- ○ Native American or American Indian
- ○ Hispanic or Latino
- ○ Native Hawaiian or Pacific Islander
- ○ Asian
- ○ Other _____

Q5 What is the highest level of education you have completed?

- ○ No schooling completed
- ○ No high/secondary school

- ○ Some high school/no qualifications
- ○ High school qualifications
- ○ AS/A Levels
- ○ Trade/technical/vocational training
- ○ Diploma
- ○ Bachelor's degree
- ○ Master’s degree
- ○ Professional degree
- ○ Doctorate degree

Q6 What is your current employment status?

- ○ Employed
- ○ Self-employed
- ○ Out of work and looking for work
- ○ Out of work but not currently looking for work
- ○ A homemaker
- ○ A student
- ○ Military
- ○ Retired
- ○ Unable to work due to ill health or disability

B: About your relationship

Q7 During the completion of this questionnaire we will be asking you some questions regarding abusive experiences that you may have had while in a romantic relationship. Please indicate which of the following applies to you:

- ○ I would describe my current relationship as being abusive
- ○ I am not in a relationship currently but my most recent relationship was abusive
- ○ I was in a past relationship that was abusive, but have been in non-abusive relationships since

Q8 Please answer the following questions referring to your most recent abusive relationship, whether this is your current relationship or a relationship that has ended. The words 'partner' and 'your partner' will refer to the person that you describe in this current or past relationship. Please answer every question about the same person.

What is (was) your relationship with your partner?

- ○ Dating
- ○ Living together
- ○ Engaged and not living together
- ○ Engaged and living together
- ○ Married and not living together
- ○ Married and living together

Q9 How long did this relationship last?

- ○ Less than 1 month
- ○ About 1 month

- ○ About 2 months
- ○ 3-5 months
- ○ 6-7 months
- ○ About 1 year
- ○ More than 1 year, but less than 2 years
- ○ About 2 years
- ○ More than 2 years but less than 4 years
- ○ 4 years or more

Q10 How long ago did this relationship end?

- ○ It has not ended
- ○ Less than one month ago
- ○ 1 month ago
- ○ About 2 months ago
- ○ 3-5 months ago
- ○ 6-11 months ago
- ○ 12 months ago
- ○ More than 1 year ago but less than 2 years
- ○ 2 years ago
- ○ More than 2 years ago

Q11 What is (was) your partner's gender?

- ○ Male
- ○ Female

Q12 Is (was) sex a part of your relationship?

- ○ Yes
- ○ No

Q13 Physical abuse includes any violent type of behaviour, including hitting, biting, grabbing, shaking, punching, slapping, burning, kicking or shoving. Please indicate how frequently you experienced physical abuse during the last year that you were in this relationship:

- ○ Once
- ○ Twice
- ○ Three - five times
- ○ Six - ten times
- ○ Eleven - twenty times
- ○ More than twenty times
- ○ Not in the last year of our relationship but it did happen before
- ○ This never happened

Q14 Sexual abuse can be defined as any sexual encounter without consent and includes any unwanted touching, forced sexual activity, forcing the victim to perform sexual

acts, painful or degrading acts during intercourse, and exploitation through photography or prostitution. Please indicate how frequently you experienced sexual abuse during the last year that you were in this relationship:

- ○ Once
- ○ Twice
- ○ Three - five times
- ○ Six - ten times
- ○ Eleven - twenty times
- ○ More than twenty times
- ○ Not in the last year of our relationship but it did happen before
- ○ This never happened

Q15 Emotional/Psychological abuse includes behaviour such as being intimidated, threatened, humiliated, criticised, undermined or isolated. Please indicate how frequently you experienced emotional abuse during the last year that you were in this relationship:

- ○ Once
- ○ Twice
- ○ Three - five times
- ○ Six - ten times
- ○ Eleven - twenty times
- ○ More than twenty times
- ○ Not in the last year of our relationship but it did happen before

- ○ This never happened

Q16 Financial Abuse includes withholding money, not involving you in finances or even preventing you from getting a job. Please indicate how frequently you experienced financial abuse during the last year that you were in this relationship:

- ○ Once
- ○ Twice
- ○ Three - five times
- ○ Six - ten times
- ○ Eleven - twenty times
- ○ More than twenty times
- ○ Not in the last year of our relationship but it did happen before
- ○ This never happened

Q17

Do/Did you have any children in this relationship?

- ○ I had biological children with this partner
- ○ I had children/a child from a different relationship
- ○ My partner had children/a child from a different relationship
- ○ Neither of us had any children in this relationship

Q18 If you are no longer in an abusive relationship, are you still in contact with this person?

- ○ Yes
- ○ No

Q19 Have you been involved in any court proceedings related to this relationship?

- ○ Yes
- ○ No

Q20 Have you been involved in any custody proceedings related to this relationship?

- ○ Yes
- ○ No
- ○ Not Applicable

Q21 Have you or did you confide in someone about the abuse that you experience(d) in your relationship?

- ○ Yes
- ○ No

Q22 Which of the following statements applies to you best?

- ○ The relationship that I have just described is (was) my first ever significant relationship
- ○ The relationship that I have just described is (was) not my first ever significant relationship

Q23 Which of the following statements applies to you best?

- ○ This is (was) my only experience of being in an abusive relationship

- ○ I have been in more than one abusive relationship

Q24 Which of the following statements applies to you best?

- ○ I have been in other relationships that were not abusive
- ○ I have never been in a relationship that was not abusive

Q25 Which of the following statements applies to you best?

- ○ My first ever significant relationship was abusive
- ○ My first ever significant relationship was not abusive

Q26 How old were you when you first experienced abuse in a romantic relationship?

- ○ 15 years old or under
- ○ 16 years old
- ○ 17 years old
- ○ 18 years old
- ○ 19 years old
- ○ 20 years old
- ○ 21 years old
- ○ 22 years old
- ○ 23 years old
- ○ 24 years old
- ○ 25 years old

This questionnaire has asked questions about a specific relationship that you have been in. Since being in this relationship:

Have you accessed any of the following services/resources in relation to concerns about your mental health?

- [ ] GP
- [ ] Counselling Services
- [ ] Self-help websites
- [ ] Psychologist
- [ ] Psychotherapist
- [ ] Psychiatrist
- [ ] Inpatient mental health services

Since being in this relationship:

Have you received any of the following treatments?

- [ ] Medication for anxiety
- [ ] Medication for depression
- [ ] Medication for sleeping difficulties
- [ ] Cognitive Behavioural Therapy (CBT)
- [ ] Eye Movement Desensitisation Reprocessing (EMDR)

☐ Other form of psychotherapy_____

☐ Other _____

Have you been told by a health professional that you have symptoms that would meet the criteria for any of the following diagnoses?

Please indicate when you received this diagnosis:

	Received this diagnosis in the past 6 months	Received this diagnosis more than 6 months ago	Never been given this diagnosis
Anxiety Disorder including social anxiety and generalised anxiety	○	○	○
Depressive Disorder	○	○	○
Post Traumatic Stress Disorder	○	○	○
Obsessive Compulsive Disorder	○	○	○
Panic Disorder	○	○	○
Psychosis	○	○	○
Other	○	○	○

Q38 Where did you hear about this survey?

○ Social media site

○ Online charity site

- ○ At University
- ○ In a public place
- ○ Through a program for victims of abuse
- ○ At a shelter/housing facility for victims of abuse
- ○ Other _____

DONATE Thank you for taking part in this study. To thank you for your time, we would like to make a £2 donation to one of the following charities. Please select which charity you would like us to donate to. (Please note, charity donations will be capped after a total of £400 has been donated).

- ○ VOICES: A Bath-based charity supporting victims of domestic abuse
- ○ Bristol Against Violence and Abuse (BAVA)
- ○ Southside Domestic Abuse Advice and Advocacy
- ○ National domestic violence helpline UK

Thank you for participating in this survey. You will now be redirected to the REPAIR project website where you will be given 'debrief' information about the study you have just completed. You will be given information about how to delete traces of this project from your computer as well as information about how to withdraw your data from this study if you wish to do so. The website also provides contact details for helpful services, if you have experienced any concerns whilst participating in this project.